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Useful Family Book.

THE
MEDICAL AND AGRICULTURAL
REGISTER,

FOR THE YEARS 1806 AND 1807.

Containing

PRACTICAL INFORMATION ON HUSBANDRY; CAUTIONS
AND DIRECTIONS FOR THE PRESERVATION OF
HEALTH, MANAGEMENT OF THE SICK, &c.

Designed

FOR THE USE OF FAMILIES.

—000—
EDITED BY DANIEL ADAMS, M. B.
—000—

—And he gave it for his opinion, that whoever could make two ears of
corn, or two blades of grass, to grow upon a spot of ground where only one
grew before, would deserve better of mankind, and do more essential service
to his country, than the whole race of politicians put together.

SWIFT.

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Advertisement.

SINCE publishing our last Number, it has been determined to discontinue the *REGISTER*, at least for the present. One reason for this is, the decreasing number of our Subscribers; another is, the want of sufficient support, by communications. The Editor, however, will be happy still in receiving communications for the work, if lodged at the bookstore of Messrs. ETHERIDGE & BLISS: and should a sufficiency of valuable matter be collected, and times should change for the better, he may, at a convenient season, resume the work.

BOSTON, }
JAN. 1808. }

THE
Medical and Agricultural Register.

VOL. I.]

JANUARY, 1806.

[No. 1.

OBSERVATIONS.

NEWS, politics, theology, literature, natural history, and the fine arts, have all been industriously provided for by various institutions, and each by numerous periodical publications; while *Health and Agriculture*, subjects, which, in one way or another, "*come home to every man's business and interest*," have been in a measure neglected; at least, nothing heretofore has ever been attempted in a way, all circumstances considered, so as to put the means of information on these subjects *fairly within the reach of every person*. To effect so desirable an end, is the design of this publication. It has for its object the widest diffusion, and the greatest possible extent of the knowledge of the best means of preserving the health, and of promoting the agriculture, of a growing and an extensive country. These considerations, it is hoped, will be received as a sufficient apology for having, at this time, added another to the number of periodical publications, which, at the present day, solicit the patronage of the public.

Idle speculation and mere theory, unsupported by facts, come not within the design of this work. A humbler, and, as we conceive, a more useful intention with us, is, to collect and bring forward that information, which shall be calculated "to supply the wants and relieve the necessities of mankind, and thereby *render human life more comfortable*;" information by which the productions of the land may be multiplied, and the toils of the husbandman shortened. It is to extend the boundaries of knowledge and of skill, in the important concerns of rural and domestic life; to catch improvements as they rise; to excite inquiry where it is not; to call forth observation; to bring forward facts; and, "by inculcating the importance of ordinary things and of practical, every day truths," to render the great body of our fellow-citizens more healthy, wealthy, understanding, and happy.

To this end, the joint co-operation of every friend to health and agriculture is most anxiously solicited. Books are before us, and from these, many and various important articles will often be selected. But what we are particularly solicitous to obtain, is, the observations, the practices, the growing experience of medical and practical husbandmen, in our country, by which health, in any instance,

may have been preserved; disease more successfully combated; the causes and the accession of our epidemics better ascertained; the industry of our country more happily directed; expenses diminished; the fertility of the soil increased; and which, being generally promulgated and known, might extend the benefits resulting from such improvements and discoveries, uniformly and extensively through the country. The want of an education, it is hoped, will, in no instance, be offered as an apology for the withholding of these services. Every man capable of correct observation, is capable of becoming a valuable correspondent to this work. He need not go far aside from his ordinary concerns. Nature is the proper theatre for the study of these arts; fields and bed-chambers of the sick, the best apartments. It is not the *manner*, but the *matter*, which must stamp the value of such communications. "Many of our practical husbandmen, who add sound judgment to nice observation and long experience, accumulate large stores of knowledge; and too frequently, this not being perpetuated by writing or printing, dies with him, whose life was expended in the collection of it."* How much precious information, in this way, has been lost to mankind! We would fondly anticipate better things of many, who may honor this work with their attention. A medium of communication is here set open, through which, every one is solicited, in the language most natural and easy to himself, to come forward, and propose his doubts, suggest his inquiries, or communicate his knowledge, to the public eye. "When every one contributes something, general improvement progresses, and the sum of knowledge, thus accumulated, will quickly resemble those extensive and fathomless waters, which were collected from a variety of small streams."†

We cannot conclude these observations without noticing our sense of gratitude and obligation, to those gentlemen and societies, who, at our solicitation, have engaged us their support, and the favor of their communications, for this work. The knowledge and the experience of these gentlemen, many of them, in Medicine and Agriculture, their zeal for improvements, and the ardor of their inquiries, promise, in time, the acquisition of much useful information to the public. Also, gentlemen of the clergy, to whom our communications have been addressed, who, in many instances, by a prompt attention to the objects of those communications, have rendered us very important services; they also will be pleased to accept the assurances of our high consideration and respect. We will not withhold from them and the public, our expectations of their usefulness and importance to us, in the present undertaking. Being, many of them, gentlemen of much agricultural information; also possessing science; and placed as they are, in situations to see, notice, and observe the rise, progress, and termination of diseases, particularly epidemical diseases; practices and improvements in agriculture, together with extraordinary incidents of every kind, each one in his own town or parish; under these circumstances, our expectations are unto them, for much important information.

Thus have we endeavored, by a few observations, to give a general illustration of our design. Of our industry and success in the execution of it, it must now be submitted to the public to form an opinion from the execution of the work.

Boston, January, 1806.

* *Editors of the Medical Repository.* † *Rev. Mr. FOSTER'S Oration.*

MEDICAL.

DR. ADAMS,

ONE object contemplated in your publication, as I find it expressed in the prospectus of the work, is, "To instruct the attendants on the sick how they may best aid the means prescribed by their physician." Comporting with this design, I send you the following extract from Dr. PARKINSON'S *Medical Admonitions*, which I have a desire to see published in the REGISTER, and which I most devoutly wish may receive that general and particular attention, to which, by its importance, it is justly entitled.

Your's, &c. C. D.

January, 1806.

The Despair and Inactivity of Nurses, under certain Circumstances, often fatal to their Patients.—An Inability of Swallowing, by no means so common as it is conceived to be.—The Way in which Nurses are deceived.—How to proceed under such Appearances.

"ON the appearance of those symptoms, more especially in fevers, which in general are supposed to be the harbingers of death, the despair and inactivity produced in the minds of the attendants, however much to be regretted, can by no means be wondered at, the symptoms seeming to shew that death must soon put an end to the calamities of the unhappy sufferer. So great a degree of despair, indeed, possesses the by-standers, in these distressing cases, that frequently, when the medical man sees considerable ground for hope, they will, in the strongest terms, condemn all attempts for his recovery, as useless and cruel, since they imagine, by these supposed vain attempts, his torments are increased, and their duration prolonged. To the frequency with which this idea is adopted, may be attributed the death of numbers; for it seldom happens, when this notion is entertained, that the strongest remonstrances of the physician can produce the least exertions of the attendants, except indeed during the time he is present; for immediately after his departure all exertions cease. Such conduct cannot find a sufficient excuse in misapplied tender-

ness, since the consequence resulting from so culpable an omission, may be the death of one, who otherwise might have been saved; for, in all the long catalogue of diseases to which we are subject, there are none in which symptoms of so alarming an appearance are to be found, and where so great a possibility of recovery may exist, as in putrid, nervous, and bilious fevers. Instances of recovery from these diseases have been so really wonderful, that so long as the patient breathes, his attendants should not devote themselves to despair, but should persist in their endeavors with unabated assiduity.

"It is a circumstance that must have occurred often to every medical man, that having left a patient in one or the other of these fevers, with the most earnest entreaties to his attendants to supply him regularly with medicines, and almost constantly with drink, and with nourishment, he shall be told at his next visit, that they have not been able to procure the swallowing of a drop of either; when, perhaps, if the physician himself should make the trial, he would experience very little difficulty in getting him to swallow a considerable quantity.

"To ascertain the cause of this difference of success, in the different attempts of the nurse and the physician, and to point out the proper method to be used in these situations, shall now be attempted.

"In the advanced periods of these fevers, the brain and the whole nervous system are in so deranged a state, that a slight stimulus seldom excites the corresponding idea which it was used to produce in health. When, therefore, a patient is in this state, the merely emptying a spoonful of liquor into the mouth, is not sufficient to excite those muscles into action, by which the act of swallowing is performed. The liquor, therefore, remains in the mouth, until it escapes out at the corner of the lips; or else, from a drop insinuating itself into the windpipe, the whole quantity, from the violence and suddenness of the irritation, is thrown forcibly out at the mouth and nostrils.

"The appearances, in either of these cases, seem, at first sight, to warrant the conclusion that is usually drawn from them, *that the patient has totally lost the power of swallowing.* But if the patient be so much aroused from his delirious or comatose state, as to be apprized of the *nature and intention* of the endeavors that are making, he will generally be found ready enough to assist them. After rousing him, by gently shaking, speaking to him, raising him in the bed, &c. a spoon filled with the liquor that is intended to be given him, should be put into his mouth, moving it about against the tongue, lips, and sides of the mouth, until he is discovered to have

swallowed the few drops that have fallen from the spoon; it now appearing that the muscles serving to deglutition [swallowing] are capable of performing their office, the whole quantity is to be poured into the mouth, and followed by as much more as may be thought necessary, since, after having been thus roused into action, it will be some little time before they relapse into their previous state of insensibility.

"It is believed, by a careful attention to these rules, the sufferings of the sick, in many instances, would be greatly mitigated, and oftentimes that lives might be saved."

AGRICULTURAL.

Remarks on Fruit Trees.—Their State of Decay.—Often occasioned by injudicious Pruning.—A View of Mr. Forsyth's Mode of healing and restoring to Health and Vigor all wounded and decayed Trees.

THE culture of the apple tree forms a capital object in American husbandry. And, indeed, when we consider the abundant, pleasant, wholesome, and exhilarating beverage which the fruit of this tree affords, we cannot too much applaud the design. The mode of culture, however, is very defective: perhaps there is no branch of American husbandry, which calls more loudly for reform. The pruning of trees especially, as it is but too generally practised, is truly barbarous, if it be allowable so to speak of wounds, mutilations and bruises.

On entering an orchard, our attention is suddenly and forcibly arrested by the rotten, hollow, and decayed state of almost every tree arrived to maturity. Look to the forests; we do not there see so much deformity, so many symptoms of disease. This argues that something is amiss.

Nature is continually holding out intimations of her designs, would men but attend to them. Her operations are always correct, and never directed to deceive; and he who follows nature, watches her intimations, seconds her efforts, and studies her designs, is unquestionably the ablest physician, the best surgeon, and the most successful cultivator.

On the cutting off of a limb, or the beating off of the bark from a tree, what follows? A new bark or kind of callous ring arises, gradually extending itself to cover the wound; plainly intimating, that the denuded part cannot be left exposed to

the direct influence of the sun, and of the weather, without injury to the tree. If the limb cut off be small, and the tree young, nature, unassisted, generally effects her purpose, and covers the wound with new wood and bark. But if the limb be large, or the tree old, her intentions are usually frustrated; the wound is covered but in part. Nature failing in her efforts, the callous ring or lip ceases to be extended, forming a hollow or cavity of the central part, where the rain or snow is very apt to lodge, which, penetrating between the bark and the wood, dried and cracked by hard frosts or a warm sun, promotes that fermentation with the natural juices, which is the certain source of disease and rottenness; which extending further every year, the tree soon becomes hollow, and goes to decay. Such is the state and the untimely end of many of our fruit trees.

What skin is to an animal, the same is bark to a plant or tree. They are the *citadels of life*, and cannot be broken through without injury and disease, or even death, unless the breaches be repaired. How, therefore, to repair all such breaches in trees, whether caused by pruning or by accidental injury; how to assist nature in her efforts, so as to heal all wounds, however extensive, inflicted in them, covering the tree again with new, fresh bark; nay more, how actually to fill up hollow and decayed trees with new and sound wood, so as to leave no spot or blemish; how to do all these things, it may be gratifying to many of our readers to know. The process for these operations has lately been delivered, in a treatise on the culture and management of fruit trees, by WILLIAM FORSYTH, gardener to the king of England. His dependence for these extraordinary effects, is on a certain composition, applied in a liquid state, and laid over the wounded or injured part of the tree with a (painter's) brush. This composition is asserted to be of a soft and healing nature, possessing an absorbent and an adhesive quality, and by resisting the force of washing rains, the contraction of nipping frosts, and the effects of a warm sun or drying winds, effectually excludes the pernicious influence of a changeable atmosphere, while the process of healing regularly advances underneath, till the wounded or injured part is completely filled up with new wood and covered with fresh bark. This method of Mr. Forsyth's, for healing and restoring wounded and decayed trees, soon attracted the notice of many gentlemen of high rank and of government. The following are his words to the commissioners, appointed by parliament to examine into the efficacy of his composition.

“After many years close application, and strictly critical observation, I am fully convinced, that upon the excision of the decayed part, and the application of a composition, it is possible to heal *any wounded tree*, and even to restore it to its former health, if there be only an *inch or two* of bark remaining, to carry on the circulation of the vegetable economy. This is no theory, but is demonstrated by a great variety of experiments on fruit and forest trees in his majesty's gardens at Kensington, now under my care; and which trees, upon examination, have convinced all those who viewed them, of the practicability of producing the finest, cleanest, and most prolific branches from stumps in a state of decay; and with confidence I can assert, that I have succeeded so well with his majesty's fruit trees, that by cutting out the diseased and dead wood, the trees have produced more and finer fruit in two and three years, than a tree newly planted will in thirteen or fourteen years.”

After a very attentive and minute examination into the process and mode of cure by Mr. Forsyth, as well as the effects which his remedy has produced on trees of various kinds and ages in the royal gardens at Kensington, the several objects of their inquiry being followed by the clearest conviction of the great public utility which would result from a general application of the remedy, the commissioners were pleased to make a representation of it to the lords of his majesty's treasury, under whose sanction it was submitted to the consideration of the house of commons, an address presented to the crown, and £4000 ordered by his majesty to be given Mr. Forsyth, for making known to the public the materials of his composition, with the method of preparing it, as well as the mode of its application; all which we shall now lay before our readers.

“Royal Gardens, Kensington, May 11, 1791.

“*Directions for making a Composition for curing Diseases, Defects, and Injuries, in all kinds of Fruit and Forest Trees, and the Method of preparing the Trees and laying on the Composition.*
By WILLIAM FORSYTH.

“TAKE one bushel of fresh cow-dung, half a bushel of lime rubbish of old buildings, (that from the ceilings of rooms is preferable,) half a bushel of wood-ashes, and a sixteenth part of a bushel of pit or river sand: the three last articles are to be sifted fine before they are mixed; then work them well together with a spade, and afterwards with a wooden beater,

until the stuff is very smooth, like fine plaster used for the ceilings of rooms.

"The composition being thus made, care must be taken to prepare the tree properly for its application, by cutting away all the dead, decayed, and injured parts, till you come to the fresh sound wood, leaving the surface of the wood very smooth, and rounding off the edges of the bark with a draw-knife, or other instrument, perfectly smooth, which must be particularly attended to; then lay on the plaster about one-eighth of an inch thick, all over the part where the wood or bark has been so cut away, finishing off the edges as thin as possible; then take a quantity of dry powder, of wood ashes mixed with a sixth part of the same quantity of the ashes of burnt bones, put it into a tin box with holes in the top, and shake the powder on the surface of the plaster, till the whole is covered over with it, letting it remain for half an hour, to absorb the moisture; then apply more powder, rubbing it on gently with the hand, and repeating the application of the powder till the whole plaster becomes a dry smooth surface.

"All trees cut down near the ground, (for the purpose of raising new trees or shoots from their roots,) should have the surface (the top of the stump) made quite smooth, rounding it off in a small degree, as before mentioned; and the dry powder directed to be used afterwards, should have an equal quantity of powder of alabaster mixed with it, in order the better to resist the dripping of trees and heavy rains.

"If any of the composition be left for a future occasion, it should be kept in a tub, or other vessel, and urine of any kind poured on it, so as to cover the surface, otherwise the atmosphere will greatly hurt the efficacy of the application.

"Where lime rubbish of old buildings cannot be easily got, take pounded chalk, or common lime, after having been slacked a month at least.

"As the growth of the tree will gradually affect the plaster, by raising up its edges next the bark, care should be taken, where that happens, to rub it over with the finger, when occasion may require, (which is best done when moistened by rain,) that the plaster may be kept whole, to prevent the air and wet from penetrating into the wound."

"Additional Directions for Making and Using the Composition."

"TO the foregoing directions for making and applying the composition, it is necessary to add the following.

"As the best way of using the composition is found, by experience, to be in a liquid state; it must, therefore, be reduced to the consistence of pretty thick paint, by mixing it up with a sufficient quantity of urine and soap-suds, and laid on with a painter's brush. The powder of wood ashes and burnt bones is to be applied as before directed, patting it down with the hand.

"When trees are become hollow, you must scoop out all the rotten, loose, and dead parts of the trunk, till you come to the solid wood, leaving the surface smooth; then cover the hollow, and every part where the canker has been cut out, or branches lopped off, with the composition; and, as the edges grow, take care not to let the new wood come in contact with the dead, part of which it may be sometimes necessary to leave; but cut out the old dead wood as the new advances, keeping a hollow between them, to allow the new wood room to extend itself, and thereby fill up the cavity, which it will do in time, so as to make, as it were, a new tree. If the cavity be large, you may cut away as much at one operation as will be sufficient for three years; but in this you are to be guided by the size of the wound, and other circumstances. When the new wood, advancing from both sides of the wound, has almost met, cut off the bark from both the edges, that the solid wood may join, which, if properly managed, it will do, leaving only a slight seam in the bark. If the tree be very much decayed, do not cut away all the dead wood at once, which would weaken the tree too much, if a standard, and endanger its being blown down by the wind: it will, therefore, be necessary to leave part of the dead wood at first, to strengthen the tree, and to cut it out by degrees, as the new wood is formed. If there be any canker or gum oozing, the infected parts must be pared off, or cut out with a proper instrument. When the stem is very much decayed and hollow, it will be necessary to open the ground and examine the roots."

Thus have we given the outlines of a work, which has excited much attention in the natural world. Mr. Forsyth's method of treating fruit and forest trees, has alike succeeded in the cold atmosphere of Russia, under the burning suns of India, and, in a variety of instances, has been adopted in America. We shall now add the following extracts from letters of good authority, shewing what confidence is to be attached to this mode of treating fruit and forest trees, by Mr. Forsyth.

Extract from the Introduction to the American Edition, by WILLIAM COBBETT, who formerly resided some Years in Philadelphia, to Mr. JAMES PAUL, senior, of Buffleton, in Pennsylvania.

"DURING the last summer, (1801) I went with a party of friends, to be an eye witness of the effects (of which I had heard such wonders related) of this gentleman's [Mr. Forsyth's] mode of cultivating and curing trees; and though my mind had received a strong prepossession in its favor, what I saw very far surpassed my expectation. Mr. Forsyth, whose book was not then published, did us the favor to shew us the manuscript of it, and also the drawings for the plates, which are now to be found at the end of the work. After having read those parts of the manuscript which more immediately referred to the drawings, we went into the gardens, and there saw every tree which the drawings were intended to represent, and of which we found them to be a most exact representation.

"We examined these trees from the ground to the topmost branches; we counted the joints in the wood, ascertained the time and extent of its growth, and, in short, verified every fact that the book related. To raise fine flourishing wood from an old, cankered, gummy, decayed stem; to raise as much wood on that stem in three years, as could have been raised on the finest young tree in twelve years; to take the rotten wood from the trunk, to replace it with sound wood, actually to fill up the hollows, and of a mere shell to make a full, round, and solid trunk: all this seems incredible, but of all this we saw indubitable proof."

Extract of a Letter from PETER W. YATES, Esq. of Albany, dated September, 1803, to the Editors of the American Edition of Mr. Forsyth's Treatise on Fruit Trees.

"TO renovate diseased trees fast hastening to decay, and to increase the quantity and meliorate the quality of the fruit, in the way by him [Mr. Forsyth] prescribed, seemed to me almost incredible; but, as in the animal kingdom, desperate remedies are sometimes applied to cure desperate diseases, and the skilful surgeon will amputate a limb to save the body, I was induced to attempt it in the vegetable kingdom, and therefore hesitated not a moment to make the experiment. I pursued the mode of process prescribed by Mr. Forsyth. One of my first experiments was in May, 1796, on a young bearing (Boncretien) Pear tree, the bark whereof, as well as the alburnum or sap-wood, and the heart-wood, were dead from the

ground upwards about five feet. I cut away all the dead part, leaving nothing but the bark on the opposite side, and applied the composition. The effects were soon visible. The external part of the wound (which composed about the one-third part of the trunk) was in a few days surrounded by a callus or lip, which continued to increase, until the sap-flow was obstructed and stagnated by the next autumnal frost; but by the subsequent annual flow of the juices, the callus increased, so as to fill the wounded part with new wood. The old and new wood united, and is covered with new bark.

"I forbear giving a particular detail of any more individual instances; let it suffice for me to say, that I at the same time made similar experiments on some Plum, Cherry, Peach, and Apricot trees, and have annually, in the vernal months, continued the operation on such of my fruit trees as became infected; some of which are almost healed, and others in a progressive state of improvement; nor has any one case of failure occurred, where all the defective wood was carefully extirpated, and the composition duly applied.

"I am therefore fully satisfied, that Mr. Forsyth's remedy affords a radical cure for diseases, defects, and injuries in all kinds of fruit trees; and that it may with equal success and advantage be applied in this climate as in England. But whether in a more northern or southern latitude, an alteration in the consistence of the composition may or may not be requisite, in order to suit the extremes of heat and cold, time and experience will demonstrate.

"Encouraged by the success of these trials and experiments, I have made it a practice, in pruning my fruit trees, especially where large amputations are made, to apply some of the composition to every wound; it prevents the exuding of the vegetable juices through the wounded parts; it aids and precipitates the healing of the wounds, promotes the vigor and health of the trees, and adds to the size and flavor of the fruit."

Extract from the same, on the proper Time for the Pruning of Trees.

"TO autumn and winter pruning, may be attributed the diseases and rapid decay of many fruit trees in several orchards; for then the sap-flow is on the decline, and stagnated; the wounds are exposed to the inclemency of the weather, which produces canker and mortification, and they perish. The practice of pruning in the spring, when the sap juice is in brisk

motion is preferable to any other season of the year. Mr. Forsyth's reasons for this are, in my opinion, forcible and conclusive."

Some further observations on this subject, and how far this mode of treating fruit trees, by Mr. Forsyth, may be advantageously adopted by the people in these states, may be expected in our next number.

MISCELLANEOUS ARTICLES.

ARTICLE I.

Observations on the Importance of accurate Records being kept of the Diseases and Deaths in every Town.—Ministers the best situated for the keeping of such Records; communicated in a Letter from the Rev. EBENEZER HILL; dated Mason, December, 1805. To which is added, some topographical Description of the Town, together with a Bill of Mortality for eight Years.

TO DR. D. ADAMS.

I HAVE been long persuaded, that an accurate record of deaths and diseases, kept in the several towns in a country, published annually, and collected and preserved in some public register, would not only form a history of the progress and decline of diseases, but might greatly assist in the improvement of the medical art. Such a record appears highly important, in a country like this, rapidly increasing in population, agricultural improvement, and refinement, not to say luxury.

Some topographical description of the place, as well as number of inhabitants, manner of living, &c. may render such publications more useful, especially in determining whether, and if so, how diseases progress, in proportion to the increase of population, cultivation of the land, and changes in the mode of living.

There are no persons who appear to be placed in a more favorable situation to keep such records, than the settled ministers in our several towns, as they are not only generally called to attend funeral solemnities, but also to visit the chambers of the sick, in their societies. And as far as this may have even a remote tendency to alleviate the miseries of their fellow creatures, it cannot be considered an object unworthy their attention. I doubt not most of my fathers and brethren

have kept records far more critical and useful than I have been able to do; and that they will need no further inducement to make public such communications as are important, but only to have a proper repository for them; such your *Medical and Agricultural Register* promises to be. Those who have not been careful to preserve such records, it is presumed, have neglected it because they had no prospect of further usefulness, than merely their own satisfaction. It is hoped this excuse will now be removed.

Agreeably with your request, I send you with this, my record of marriages, births, and deaths for the past year; and in addition, some extracts from my bill of mortality for eight years past: if thought worthy attention, they are at your service. You have, sir, my warmest wishes for success in your promisingly useful undertaking.

Your friend and humble servant,
EBENEZER HILL.

Mason, December, 1805.

Topographical Description of MASON.

MASON, in New Hampshire, is situated in the vicinity of the Monadnock mountains. It lies about six miles north and south, and five miles east and west. The surface is hilly, and the hills generally large swells. The soil, in most parts of the town, is strong and good, but rocky. There are no natural ponds, nor extensive meadows: the streams are rapid. The vallies are narrow, and the inhabitants mostly settled on the high lands. The first permanent settlement in the town was in the year 1752. It was incorporated in 1768; at which time the number of rateable inhabitants was only 76. The present number, and increase of population of late, may be nearly known by the census taken in the year 1800, which gives the number 1179.

Bill of Mortality for eight Years, ending November 1805.

Year.	Births.	Deaths.	Complaints.		Complaints.		Complaints.	
1798	42	18	Consumption	27	Rickets	1	Erysipelas	1
1799	40	6	Dysentary	20	Gravel	1	Whooping Cough	2
1800	30	12	Fever	13	Diabetes	1	Salt Rheum	1
1801	33	16	Quinly	8	Worms & Cank.	1	Drowned	1
1802		16	Convulsions	8	Hydroceph. Int.	1	Suddenly	3
1803	26	21	Falcy	2	Do. and Spina	}	Still born	10
1804	29	16	Canker-rash	2	Bifida		Child birth	1
1805	34	20	Droopy	3	Hydrophobia	1	Old age	8
Total, deaths	122		Jaundice	2	Mortification	1	Unknown	2

CONSUMPTION.				
No.	Ages.	No. Months.		
1	infant.	1 in Feb.	DYSENTARY	{ 6 children; 4 in Nov. and Dec. 1800, all in one neighborhood and family connexion; 2 in Oct. 1801.
4	under 20	2—March.		
6	25	4—April.		
6	30	6—May.		
1	35	1—June.		
1	40	1—July.	FEVER	{ 1 man about 60, in Nov. 1800; and 1 woman about 40, in June, 1801; both in the same family connexion with the 4 above mentioned.
2	45	3—Sept.		
0	50	3—Oct.		
0	55	2—Nov.		
4	60	3—Dec.		
2	65	1—		
				{ 6 in August and Sept. 1803, all under 5 years.
				{ 1800, 1 bilious putrid, Jan.; 1 nervous, June.
				{ 1802, 1 in Jan.; 2 in March, above 60; 1 in April, above 30; 1 in Sept. under 12.
				{ 1803, 1 in Feb. aged 14; 1 in August, 27; 1 in Sept. 16.

Remarks.

1801.—Of old age, a woman, aged 97; of a feeble constitution and febrile habit, till advanced 40 years.

1803.—This year a fever of the bilious kind prevailed in this town, but mostly confined to one corner. From the first of June to the last of December, 51 persons were attacked with it. But very few instances occurred, where the fever made its appearance in a family, and any of the family escaped it.

1805.—Very suddenly, a person recovering from a fever, and able to walk the house; without any previous complaint, she fell from her chair and immediately expired. This year hooping cough has been epidemic in this town.

It may, perhaps, be worthy of remark, that out of 60 adults, who have died in this town in the last eight years, 27 have been swept away by consumption; only 6 more by all other diseases than by this very formidable one. The proportion has been nearly the same for 15 years, only 12 more by all other diseases. Of the 27 victims to this fatal disorder, in the last eight years, 17 were females.

ARTICLE II.

A Caution to Persons exposed to extreme Cold.

ONE effect of extreme cold, on the human body, seems to be that of producing a strong and almost unconquerable, disposition to sleep. This appears evident, upon recollecting the effects of cold, as described in the first voyage of captain Cook, for making discoveries in the southern hemisphere. During his stay at *Terra del Fuego*, Mr. Banks and Dr. Solander, with a party composed of draughtsmen, &c. had made an excursion into the interior of the country. It being eight in

the evening, the blasts of wind very piercing, and the snow falling thick, they were passing through a swamp, towards a wood, in the covert of which they proposed to build a hut, and kindle a fire, to defend themselves from the severity of the weather. Dr. Solander, having often passed over mountains in cold countries, was sensible, that extreme cold, when joined with fatigue, occasions a drowsiness which is not easily resisted: he therefore entreated his friends to keep in motion, however disagreeable it might be to them. His words were, "Whoever sits down, will sleep; and whoever sleeps, will wake no more." Every one seemed accordingly armed with resolution; but, on a sudden, the cold became so intense, as to threaten the most dreadful effects. It was now very remarkable, that the doctor himself, who had so forcibly admonished and alarmed his party, was the first that insisted to be suffered to repose. In spite of the most earnest entreaties of his friends, he lay down amidst the snow; and it was with difficulty they kept him awake. One of the black servants also became weak and faint, and was on the point of following this bad example. A party was therefore detached, to make a fire at the first commodious spot they should find. Mr. Banks and four more remained with the doctor and Richmond the black, who with the utmost difficulty were persuaded to come on; and when they had traversed the greatest part of the swamp, they expressed their inability of going any further. When the black was told, that if he remained there he would soon be frozen to death, his reply was, that he was so much exhausted with fatigue, that death would be a relief to him. Dr. Solander said, he was not unwilling to go, but that he must first take some sleep; still persisting in acting contrary to the opinion which he had himself delivered to the company. Thus resolved, they both sat down, supported by some bushes, and in a short time fell asleep. Intelligence now came from the advanced party, that a fire was kindled about a quarter of a mile further on the way. Mr. Banks then awoke the doctor, who had already almost lost the use of his limbs, though it was but a few minutes since he sat down; nevertheless, he consented to go on: but every measure taken to relieve the black proved ineffectual.

These circumstances cannot be too generally known. And the minds of those persons, who in this way may be exposed to suffer, can hardly be sufficiently fortified with resolution, to resist a disposition which it is so natural to gratify, but which indulged, must so certainly prove fatal.

N O T E S.

NOTE I.—*To Gentlemen of the Clergy.*

WE are desirous of exhibiting, at the close of the present year, a correct, and so far as possible, a complete *BILL of MORTALITY for the State*; presenting, in one comprehensive view, the number of deaths, ages, sex, and diseases; prevailing epidemics, their accession, progress, and decline. In order to this, it will be required, that the facts necessary to the forming of such a bill, be collected from all the several towns throughout the Commonwealth. Wherefore, gentlemen; considering the favorable situation in which you are placed, for the making of such observations,—that many of you are already in the habit of it; and further, persuaded of your promptitude and zeal to co-operate, so far as circumstances and opportunity may place it in your power, in a design, having for its object the ascertaining more effectually the prevalent diseases, their probable causes, mortality, connexion with the seasons, and the comparative healthiness of the several towns in this Commonwealth: you are therefore most respectfully solicited to undertake a regular and a correct record of the number of deaths; the date, age, sex, and disease, in each instance of mortality; prevailing epidemics, the time of their accession, their progress, decline, assignable causes, if any may be known, as stagnated waters, uncleanness, sources of putrefaction, modes of living, &c. States of the weather, and such other observations as to you may appear

important to be recorded and known, to which may be added, the number of marriages and of births in each town. These observations for the present year will close with December next; and the sitting of the general court, in January, 1807, will present a very favorable opportunity for forwarding such communications to the bookstore of Messrs. Manning & Loring, No. 2, Cornhill. In those towns where there are two or more settled ministers, it will be necessary they have an understanding together, so that their bills, collectively, may be correct for the whole town: and in those towns where there is no settled minister, we beg to be permitted to look to the town-clerk, assisted by the physicians in the place, for the execution of these services.

Also, gentlemen of the clergy in the adjacent states, so far as they may come to a knowledge of our design, will oblige us by like communications.

Every one, on a moment's reflection, must be convinced of the importance of such a general and extended course of observation. In this we hope to receive general patronage; and, in a thing of so much moment, it is our expectation, that every gentleman, of whatever profession in life, so far as he may have an opportunity, will endeavour to promote and extend the knowledge of our design. The thing is very practicable and easy for all, but is extremely difficult, and even impossible, to be effected by one or a few.

NOTE II.—*To the Readers of the Register.*

HOW to afford the greatest improvement to the reader, with the least expense, has been an object with us, in forming the design of this work. Hence it is, that it appears in the manner in which it is now presented,—*un-stitched and without a cover*. To have added these, must have enhanced the price; and to have enhanced the price, must have put it out of the reach of many families, where now the expense

will be supportable and easy. We would, however, advise our readers, not to neglect the doing of this themselves. Every family is in the possession of needles and of thread, and we would advise them to stitch each number into some kind of cover, so as to preserve the numbers clean, handy to be referred to on any occasion, and in good order for binding, at the close of the volume.

CONDITIONS OF THE REGISTER.

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THE
Medical and Agricultural Register.

VOL. I.]

FEBRUARY, 1806.

[No. 2.]

M E D I C A L.

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*Method to be pursued with Persons frozen.*

REASON and humanity demand, that a knowledge of the proper mode of treatment of persons apparently dead from excessive cold, should be as generally diffused as possible. The following directions, therefore, taken from *Willich's Domestic Encyclopedia*, on this important subject, at a season of the year when incidents of this nature are so liable to happen, cannot be thought unseasonable or improper.

“In cold countries the frost frequently proves fatal to mankind, not only producing mortification, but even death itself. The hands of those unfortunate persons, who die in consequence of intense cold, are first seized, till they lose the sense of feeling; next a drowsiness pervades the whole body, which, if indulged in, is attended with imperceptible dissolution.

“If animation be suspended, from severe frost, the following will be the external symptoms: Rigidity of the whole body, and inflexibility of the limbs, which continue in the same posture as the frozen person adopted during the unfortunate accident; the teeth are closed; froth sometimes issues from the mouth; there is a total insensibility to all stimulants; the extremities are partly mortified, and in some instances spontaneously separate.

“Notwithstanding these unfavorable appearances, every exertion ought to be instantly made, to restore life, if possible, by strictly adhering to the following directions; because there is a greater probability of recovering such persons, than those

apparently deprived of life in consequence of drowning, or suspension by the cord.

"No external warmth of any kind must be applied to frozen persons, till the internal or vital heat be excited, when the former also should be carefully and very gradually adapted to the manifest degree of the latter. Hence the whole process should be performed either in the open air or in a cold room; the body carried cautiously, in a posture somewhat erect, to the nearest dwelling; the head turned gently towards the right side; and the clothes carefully taken off, without injuring the skin or bending the limbs. These precautions are necessary, as a rough treatment may easily occasion dislocations of the joints, or fractures of the bones. Next, the whole naked frame, excepting the face, should be covered with a bed of snow, from twelve to eighteen inches in thickness; or, if this cannot be procured, cold water and ice may be substituted, and cloths successively dipped in it may be spread over the whole body, especially the head and breast. After continuing these effusions, gentle frictions with flannel or soft brushes, likewise immersed into cold fluids, should be commenced; alternately making use of the shower-bath; and persevering in these attempts for an hour at least, when the body ought to be left undisturbed for some minutes. If no signs of life appear, clysters of cold water, with oil and vinegar, or six ounces of brandy, are to be administered, and the former process again and again repeated; so that five or six hours sometimes elapse before any symptoms of animation are perceptible. As soon, however, as there is the least prospect of recovery, warm fomentations must be resorted to; the degree of friction cautiously increased; or the patient placed in bed between two robust persons; emollient clysters prepared; and when he is able to swallow, a cup of tea with a little vinegar, wine, or brandy, may be allowed. In many desperate instances, however, it will perhaps be proper to perform venesection, to introduce air into the lungs by means of the common bellows, or to have recourse to the electrifying machine, or the earth-bath, &c.; but such cases must be submitted to the judgment of the profession."

Death or mortification is the most certain consequence of the sudden application of heat to the body or part frozen; a melancholy instance of which once fell under the observation of the writer of this article. A young man, on a severe winter's night, who, from certain circumstances, it was known must have lain several hours bleaching in the wind and in the snow, was discovered in the morning; and on being taken up, the spark of life was not yet so far extinct but that he was able

to open his eyes and cast a look on his benefactors. It was but a look. He was carried almost momentarily into a house, and laid before a large fire, where, alas! he never showed any further signs of life.

If a part, as a foot or a hand, be frost-bitten, let it be thawed by rubbing it with snow, and then very gradually exposed to the influence of a warmer temperature.

*An almost infallible Remedy in the Croup.*

Dr. JOHN ARCHER, of Harford county, Maryland, has found, by a number of decisive experiments, that the seneka root, (*polygala senega, lin.*) a root well known to physicians, is an almost infallible remedy in croup, or the *cynanche trachealis* of Cullen, a species of quinsy. From a letter written by Dr. Archer, addressed to Dr. Barton, of Pennsylvania College, and published in the Medical Repository, we shall communicate to our readers the following important particulars.

"I have (says Dr. Archer) in a great many instances, found a decoction of the seneka the most powerful medicine in the cure of this disease, and I am happy to tell you, that I believe it may be depended on. I make a strong decoction of the root, in the following manner, viz. half an ounce of the seneka, in coarse powder, is boiled in eight ounces of water down to four. Of this I give a tea-spoonful every half hour or hour, as the urgency of the symptoms may require, and at intervals a few drops, to keep up the stimulus, until it either acts as an emetic or cathartic. I then repeat it in smaller quantities, so as to preserve the stimulus of the seneka constantly in the mouth and throat.

"If the disease be more advanced, and the breathing more difficult, with a peculiar harsh or shrill sound, like air forcibly drawn through a small aperture, attended with a retraction of the upper part of the abdomen [belly,] under the cartilages of the ribs; I then give calomel freely and frequently, and rub mercurial ointment on the throat and contiguous parts, so as to affect the glands of the throat and mouth, as quickly as possible. This I do, that the mercury may co-operate with the action or stimulus of the seneka, and thereby hasten the separation of the membranous substance formed in the trachea\* [windpipe.]

\* "There have been many dissections of infants who have died of this disease; and almost constantly there has appeared a preternatural membrane, lining the whole internal surface of the upper part of the trachea" [windpipe.]

CULLEN.

"In this method I have succeeded in the cure of the croup, even beyond my most sanguine expectations."

This disease, ever memorable by the death of the late and much lamented GEORGE WASHINGTON, is, when it occurs, often and suddenly fatal to children. Its peculiar symptoms are, fever, cough, hoarseness, "with some thrillness and singing sound, both in speaking and coughing, as if the noise came from a brazen tube." Such is the exquisite degree of danger in this disease, and so suddenly does it run through its different stages, that parents need not be admonished, when these symptoms occur, that no time be lost in seeking for medical aid. It must, however, afford them much consolation, in those scenes of suffering of which they are made the pained spectators, in this disease, to be informed, that physicians are in the possession of a remedy, which promises so far to be successful.

We wish to learn what success has attended the use of this medicine, in the hands of other medical men. Any who have, or may hereafter be induced to make trial of it, will oblige us by communicating the result of their experience.

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## AGRICULTURAL.

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IN our first number we presented our readers with the outlines of a *Treatise on the Culture and Management of Fruit Trees*, by WILLIAM FORSYTH; detailed the particulars of a composition, with the manner of its application, for curing all wounds or injuries inflicted in them; and recited some extracts from letters of good authority, in confirmation of the success of this method of treating fruit and forest trees, both in Europe and in America.

The little trouble and the less expense of collecting the materials and preparing this composition, the ease with which it may be preserved from one month to another, and the simple manner of its application, are considerations highly favorable to the adopting of Mr. Forsyth's practice. There is, however, one forbidding circumstance,—the labor of preparing the trees, *when in their worst condition*, for its application. The expense in England, Mr. Forsyth says, reckoning every probable charge, on an average will not exceed *six pence* per tree: in this country it would be something more. In order, however, that we may come to something like a conclusion on this subject, we should do well to notice, that there are *two* important objects proposed, by Mr. Forsyth's system, to the cultivator:

1. The preservation of trees from decay.
2. The restoration of them to health and vigor, after they have fallen into a rotten and decayed state.

The process to answer the *first* intention is simple and easy; as in case of accidental injury, or upon lopping off a large limb; it is simply to round off the edges of the wound, and to apply the composition. Thus far, at least, we believe this improvement of Mr. Forsyth may be advantageously adopted by the people in these States. Large limbs, when it is necessary to remove them, should be trimmed close, and the composition immediately applied. In this every one will find his account, and will at the same time be acquiring that experience, which will enable him to judge of the propriety or advantage of a further application of this system to his rotten, hollow, and decaying trees.

Having premised these observations, we shall next present our readers with Mr. Forsyth's account of two diseases, very common and ruinous to trees.

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*"A Description of the Canker—Its Origin and Progress—Full Directions for curing it.—Of the Gum and its Remedy,*

"THE canker is a disease incident to trees, which occasions the bark to grow rough and scabby, and turns the wood affected to a rusty brown color. This disease, if no remedy be applied, will in time totally kill the tree.

"Apple trees are very liable to be affected with the canker, from the following causes, viz.

"From injudicious pruning, and from injuries sustained in applying ladders, [and from pounding, beating, and thrashing with poles,] in gathering the fruit: these injuries are very hurtful to the tree, and will infallibly bring on the canker.

"Another cause of the canker is, when we have very wet autumns, such as that of 1799, which prevents the young wood from ripening, and a hard frost setting in after, it kills the young shoots; these, if left on the tree, will bring on the canker, and increase it rapidly. Birds and insects devouring the buds will have the same effect.

"Careless people frequently leave the dead shoots on the tree throughout the summer, which will infallibly bring on the canker. Some even leave them for years, until the tree is totally killed. They should be cut off in the end of April or beginning of May, as by that time you will be able to see how far the disease has advanced. I would advise to cut two or three buds, or even more, below the apparently diseased part, as the canker frequently reaches a great way farther in the heart of the shoot, than it appears to do on the outside; you

must cut down till the brown color in the shoot disappears, and nothing remains but sound white wood.

"The truth of the foregoing observations will appear evident to any person who takes notice of the apple trees, with their mutilated stag-looking heads, as he rides or walks along the road. [Mr. Forfyth discounts the common opinion, that canker proceeds from the nature of the ground in which trees are planted.]

"The canker, as before observed, proceeds from bruises in the bark, from limbs cut off, &c. When these limbs begin to rot and grow hollow, they convey the canker to the root; for it always proceeds from the branches and stem to the roots, and never from the roots to the tree. It is granted, however, that all fruit trees love a fine rich mellow loam, and thrive much better in it than in a shingly or gravelly soil.

"When by accident, or improper treatment, trees receive large wounds, and the cure is left to nature, they are frequently overrun with gum and canker, which, if not checked, will in a short time totally ruin them. In this case you must carefully pare off, with a draw-knife, or any other convenient instrument, all the diseased part of the bark. The inner white bark is frequently infected; this must also be cut away, till no appearance of infection remains. The infection in the inner bark appears like dots made with a pen, all of which must be cut clean out; for, if any part of the canker be left, it will infect the new wood and bark. Wherever you see gum oozing out, you may rest assured that the canker is not quite eradicated; which, if suffered to remain, will spread till the whole tree becomes a mass of gum and canker, and will be killed in a very short time.

"When the trunk is become hollow, cut the loose rotten part clean out, till you come to the sound wood, taking care to round the edges of the hollow part; then apply the composition in a liquid state, laying it on with a painter's brush, wherever the cankered bark has been pared off, or the dead wood cut out, till these places are entirely covered with it: when that is done, shake some of the powder of wood ashes and burnt bones over the composition, and pat it gently down with your hand. [See No. I. pages 7, 8, 9.]

"If the foregoing directions be carefully followed, the canker will be completely eradicated, and the hollow trunk in time be filled up with sound wood. When the stem is much decayed, it will be absolutely necessary to open the ground, examine the roots, and cut off all the rotten parts.

"When you have examined all the old wounds, where large limbs have been cut off, you should next examine the old bark, and if you find the outside of it wrinkled and cracked, pare it

off, as it is always, when in that state, very much hurt by the canker; this should be done with the draw-knife, or other sharp instrument; then apply the composition as before directed, which will bring a fine smooth bark under it. In the succeeding winter or spring, you will see all the plaster, with the old part of the bark that was left in the hollow parts of the tree, or where old branches had been amputated, peeling off and shewing the smooth bark underneath. You should then scrape off, with a wooden or bone knife, what old bark remains in the hollows, where the draw-knife could not reach without cutting too much away. When that is done, mix up some fresh cow-dung with soap-suds and urine, making it very thin, and give the tree a coat of this mixture all over where the bark has been scraped off: the cow-dung will adhere to it, and heal the parts where you were obliged to scrape to the inner bark. This wash will remain till the fresh bark comes on; then it will be discharged of itself during the summer, or the next spring, leaving a new fresh smooth bark where the old and cankerous was taken off. Next spring, if any of the old bark remains, you may repeat the same operation, which will cause all the remaining old bark to slough off like a scab from a wound on the human body. By these means you will keep your trees in a fine flourishing healthy state, and in general, prevent them from becoming bark-bound.

“Remember to cut off all the ends of the small shoots, where the canker had injured them last year. Cut off also the old fruit stalks, and all the small dead stubs, which, if left, will never fail to bring on the canker.

“How common is it to see, in all parts of the country, great numbers of trees so affected with this disease, as not to produce fruit enough in twelve or fourteen years, to pay half the expense attending them; whereas, if they were to be managed according to the foregoing directions, they would more than pay all the expense in three years.

“The gum is a kind of gangrene, incident to fruit trees of the stone kind, and arises from the following causes: from injudicious pruning, from bruises, or any injuries received in the wood or bark; it may also be occasioned by a careless application of ladders, in gathering the fruit, but it particularly originates where large limbs have been lopped or broken off. This disease may be known before the gum itself makes its appearance. The bark at first becomes of a brownish color, which gradually grows darker, till at last the gum begins to ooze out like little blisters. As soon as any of these symptoms are observed, the infected part should be cut out with a sharp instrument, and the composition and powder applied immedi-



ately. You must observe to cut out the gum perfectly clean; you will see it oozing out from between the wood and bark: this must be followed till you come to the white clean bark and wood. If afterwards any gum should make its appearance, it must be scraped off; which is best done when it is moistened with rain, as you can then scrape it off easily, without hurting the bark. This must be done without delay, otherwise the disease will rapidly advance."

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*Gypsum, better known by the Name "Plaster of Paris"—Signs by which to judge of its Purity. By a Member of the Kennebeck Agricultural Society.*

[Extracted from a paper published by the Massachusetts Agricultural Society.]

"THOUGH plaster of Paris has long been used in the arts, yet within forty years only is it understood to have been applied to agricultural uses. Mr. Meyer, a clergyman of the canton of Berne, in Switzerland, is the first who made it known as a manure, to the lovers of agriculture. The intelligence soon communicated itself to the middle states of the American union, probably by the means of their German settlers. From these two centres the practice is gradually extending itself; but less gradually perhaps in Europe than in the United States.

"The plaster employed in America, is sometimes shipped from Havre de Grace, in France; but it is more constantly brought from Nova Scotia. It is doubtful which of those is the best, when applied as a manure, in the American climate.

"The plaster or gypsum imported into the United States, when proper for agricultural purposes, has the following signs: Before it is pounded it exhibits many shining specks, somewhat resembling those seen in loaf sugar; its particles are often arranged in figures more or less regular; it has no constant color, though parts of it are frequently of a dirty pale yellow brown, a pale pink, or a pale blue color; its weight seldom very much exceeds double the weight of water, when the specimen is pure; and the nail of the finger commonly makes an impression upon its surface: when it is ground for a short time between the teeth, it ceases to be gritty. If the powder be placed in an iron pot over the fire, it will briskly bubble (or seem to boil) without the aid of moisture, commonly sending out a smell like that of brimstone; and while bubbling, it is said that it will admit of a straw being thrust to the bottom of the pot. Powdered plaster may be dissolved in about 500 times its weight of spring water, at the common temperatures

of the rooms in which we live ; but when the water is heated considerably, more may be dissolved, though the chief of the extra quantity will be deposited when the water becomes cool again. If the plaster be moist, it seems to rust iron more readily than mere moisture alone ; for nearly one half of the weight of plaster (in the common temperature of the air) consists of vitriolic or sulphuric acid.\* This quantity of incorporated acid, probably prevents the effervescence of plaster with fresh quantities of acid, when the plaster is pure.

“ For common farming purposes, it may be sufficient to know, that *dry* powdered plaster, when well heated over the fire, will bubble briskly, and in general will yield a smell like that of brimstone. The trial by the teeth and by the nail may also be attended to.”

N. B. Any who may have been in the use of the plaster, would oblige us, and undoubtedly gratify the public, by a communication of their success, the kind of soil, the manner and the purpose for which it was applied.

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*Some Experiments on Sea-Coal as a Manure.* By THOMAS EWELL.

[From the Washington Federalist.]

IN the proposals I have issued, for the publication of a new work on chemistry, to be adapted for the use of the public in general, it is stated, that I would relate some experiments, instituted to throw light on the art of enriching impoverished lands. The result of several of these has so far exceeded my sanguine expectations, that I hasten to publish them; hoping to turn the attention of farmers to a subject by which their interests may be incalculably promoted.

From a train of reasonings, I was led to believe, that the common sea, pit, or mineral coal, which is so abundant in the United States, when finely pulverized, might prove a useful manure. To ascertain the truth of this, I made the following experiment.

In three small pots I put equal quantities of a yellow clay, which had lately been removed from several feet below the surface of the earth. To the first pot, a table spoonful of finely powdered pit-coal was added ; to the second, the same quantity of powdered charcoal [blacksmith's coal] obtained from the common oak ; and the third was left without any addition. The same number of sound grains of corn were planted in each ; the same quantity of water was daily added to each ; and they were exposed in similar situations to the actions of

\* Gypsum, in general, if supposed divided into ten parts, contains five of acid and three or four of calcareous matter, the rest being water.

light. The rapidity of the growth of the corn in the pot with sea-coal, exceeded any thing of the kind I ever witnessed. Many days did not elapse before this corn was four inches high, while at this time, that with the common charcoal was not two inches high, and that with the clay alone, had only sprouted.

After this experiment was made, I procured several small pots, and in each put the same quantity of clay. To the first I added a drachm of sea-coal; to the second, a drachm of horse manure; to the third, the same quantity of plaster of Paris; and to the fourth, the same quantity of common ashes: the fifth was left without any addition. To each of these the same number of sound grains of wheat and corn were added. The precautions taken in the first experiment, were strictly adhered to in this instance. In a few days my great expectations from the pit-coal were somewhat lessened, by perceiving that the wheat in the horse manure was an inch high before that of the other pots appeared: however, this was but a short time; for the wheat in the pot with the sea-coal came up, grew to an equal height in a few days, and in a fortnight, although the weather was cold, *exceeded it by two inches*. The corn in the pot with coal, maintained a still greater superiority: it appeared more healthy, and was *more than twice* as large as the *largest* in the other pots. Several of my acquaintances were astonished, to see this great difference in vegetation, produced in so short a time.

Pit-coal must be cheaper than any article used as a manure, since it is found in so many parts of this country. The above experiments unquestionably show, that when powdered, its powder, in quickening the vegetation of corn and wheat, is much greater than any manure with which we are acquainted. Our knowledge of the effects of chemical bodies on growing vegetables, is but in its infancy. Probably the discoveries which have been made are not as generally known as they should be. It may be owing to this cause,—for example, that an ounce of sulphuric acid is not added to every cart load of manure; which has long since been found, in England, to render it doubly valuable.

I congratulate my fellow-citizens of Virginia, on their prospect of renovating their large tracts of impoverished lands. By speedily using the coal in their inexhaustible mines, I hope the fertility of all their farms will soon be restored; and that the laboring poor, among my hospitable countrymen, in future, may not suffer so much as to be dependent for bread.

THOMAS EWELL.

*Georgetown, district of Columbia.*

## MISCELLANEOUS ARTICLES.

## ARTICLE III.

*A Bill of Mortality in Concord, (Mafs.) from January 1, 1779, to January 1, 1806, 27 Years; communicated in a Letter, by the Rev. EZRA RIPLEY, dated Concord, February 8, 1806.*

| Year.        | No.       | 1 Year old<br>or under. | 70 Years<br>and upward. | 80 Years<br>and upward. | 90 Years<br>and upward. |
|--------------|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| Died in 1779 | 12        | 2                       | 5                       | 1                       | 0                       |
| 80           | 12        | 2                       | 0                       | 0                       | 0                       |
| 81           | 15        | 2                       | 6                       | 4                       | 3                       |
| 82           | 18        | 2                       | 9                       | 4                       | 1                       |
| 83           | 24        | 5                       | 4                       | 1                       | 2                       |
| 84           | 16        | 4                       | 4                       | 2                       | 2                       |
| 85           | 17        | 1                       | 2                       | 0                       | 0                       |
| 86           | 19        | 4                       | 4                       | 3                       | 1                       |
| 87           | 12        | 2                       | 2                       | 1                       | 0                       |
| 88           | 19        | 2                       | 6                       | 3                       | 0                       |
| 89           | 17        | 2                       | 5                       | 5                       | 1                       |
| 90           | 26        | 4                       | 7                       | 3                       | 0                       |
| 91           | 17        | 3                       | 6                       | 3                       | 0                       |
| 92           | 26        | 4                       | 4                       | 2                       | 1                       |
| 93           | 19        | 2                       | 5                       | 2                       | 2                       |
| 94           | 20        | 1                       | 5                       | 3                       | 1                       |
| 95           | 21        | 0                       | 4                       | 2                       | 0                       |
| 96           | 26        | 2                       | 6                       | 1                       | 0                       |
| 97           | 21        | 3                       | 6                       | 3                       | 0                       |
| 98           | 22        | 1                       | 8                       | 3                       | 1                       |
| 99           | 20        | 0                       | 5                       | 1                       | 0                       |
| 1800         | 25        | 5                       | 6                       | 3                       | 1                       |
| 1            | 32        | 4                       | 8                       | 4                       | 0                       |
| 2            | 27        | 3                       | 7                       | 2                       | 0                       |
| 3            | 38        | 3                       | 5                       | 3                       | 1                       |
| 4            | 29        | 4                       | 7                       | 3                       | 1                       |
| 5            | 33        | 10                      | 8                       | 6                       | 0                       |
|              | <hr/> 573 | <hr/> 77                | <hr/> 144               | <hr/> 67                | <hr/> 16                |

The number of males 247, of females 328, of blacks 17.

Of the above, 6 died of the small-pox natural way, 2 by inoculation, 20 by casualties, 93 of consumptions, 20 of palsies, 7 of apoplexies, 9 of cancers, and 2 of the lock-jaw. The remaining number died of the various kinds of fevers and other diseases which usually attack and destroy the human body. No particular disease has raged among us in any one season, except the small-pox.

The writer of this does not affirm, that the above statement is perfectly just, but he is confident that it is very nearly correct. It may not be improper to observe, that still-born chil-

dren, strangers, and residents for a short term, who have died in this town, are not reckoned.

On the above bill, presented us by the Rev. Mr. RIPLEY, we will take the liberty to remark, that more than one in three of those who have died reached the respectable old age of seventy or more years; one in seven died at one year old or under.

Concord, according to the last census, contains about 1679 inhabitants.

#### ARTICLE IV.

*A Bill of Mortality in Portsmouth, (N. H.) from January 1, 1801, to January 1, 1806, 5 Years.*

Dr. LYMAN SPALDING of Portsmouth, publishes annually a very regular and a correct bill of mortality for that place. To the polite attention of this gentleman, in forwarding us his bills for the five last years, we are indebted for the following information.

| Year.        | No.        | 1 Year old<br>or under. | 70 Years<br>and upward. | 80 Years<br>and upward. | 90 Years<br>and upward. |
|--------------|------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Died in 1801 | 100        | 15                      | 7                       | 5                       | 2                       |
| 1802         | 150        | 30                      | 5                       | 3                       | 2                       |
| 1803         | 147        | 27                      | 7                       | 8                       | 0                       |
| 1804         | 110        | 32                      | 4                       | 5                       | 1                       |
| 1805         | 135        | 24                      | 5                       | 7                       | 1                       |
|              | <u>642</u> | <u>128</u>              | <u>28</u>               | <u>28</u>               | <u>6</u>                |

Of the above, 124 died of consumption, 61 of fevers, 31 of canker-rash (scarlatina,) 40 of colera infantum (of infants,) 27 of whooping-cough, 11 of measles, all in 1802, 7 of croup in 1805, 16 of quinsy, 5 of dysentery, 30 of palsy, 12 of apoplexy, 5 of cancers, 2 of lock-jaw, 29 of casualties.

1801.—“A bilious remitting fever prevailed the whole year. From June to October the colera infantum was prevalent. From September to the end of the year, the whooping-cough was endemic.”

1802.—“Very unhealthy, some epidemic having raged the whole year. The whooping-cough in January and February was very prevalent, and some sporadic cases continued till September. The measles made their appearance about the middle of March, and were very prevalent till July; at which time a bilious malignant fever made its appearance, and con-

tinued till August; when the colera and canker-rash commenced, and continued through the year."

1804.—"The colera of infants made its appearance in June, and concentrated into November. The whooping-cough appeared in September, and prevailed to the end of the year. The quincy, or croup, was first noticed in October, and its footsteps are traced to the last of December."

About one in *twenty-three* of those who died reached the age of seventy or more years; one in *five* died at one year old or under. Still-born children, and premature births, are not taken into this calculation.

The Doctor, in his bills for the *three* years last passed, has been so particular as to mark the sexes. In these three years, 76 have died of consumption; of these, 20 were males, and 56 females!

The marriages and births for the last three years have been as follows:

| Births.   |                |             | Marriages. |
|-----------|----------------|-------------|------------|
| 1803      | { Males, 106   | } total 213 | —          |
|           | { Females, 107 |             |            |
| 1804      | { Males, 163   | } total 293 | 64         |
|           | { Females, 130 |             |            |
| 1805      | { Males, 138   | } total 295 | 67         |
|           | { Females, 157 |             |            |
| Total 801 |                |             | —          |

Portsmouth is situated 43° 5' north latitude, and 6° 20' east longitude, from Washington; and contains about 6000 inhabitants.

### Question.

WHY is it that the ravages of the *Consumption* are so much greater with the female sex than with the male?

### ARTICLE V.

*Mammoth SQUASH; communicated in a Letter from ASA JOHNSON, Esq. dated Leominster, October 28, 1805.*

DR. ADAMS,

I RAISED this season, in my garden, a squash, of a species commonly known by the name of *Yellow crooked neck winter Squash*, which exceeded any thing of the kind I have ever before seen. Its dimensions, measuring from the centre of its stem over its back, on the convex side, to the centre of its stern, were *forty-seven* inches; round its neck, near the stem,

~~twenty-one~~ inches; round its body, *thirty* inches: it weighed *thirty-five* pounds. This squall was palatable and good.

ASA JOHNSON.

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#### ARTICLE VI.

##### *Meteorological and other Observations.*

CORRESPONDENCIES have been opened with gentlemen in different places, generally at the distance of about *fifty* miles one from the other; the number of which will be still further increased, for the purpose of obtaining courses of *meteorological* and other observations, directed particularly to the degrees of heat, or variations of the thermometer (Fahrenheit's) at sun-rise and at two o'clock P. M. course of the winds, weather, quantity of snow or rain fallen, progress of the seasons and of vegetation, state of health and the most prevalent diseases, particularly epidemical diseases, their mortality, blights, mildews, insects, &c.

The remarks on vegetation will commence with the first appearance of it in the spring, and will be made on the putting forth of leaves and the blossoming of trees, the flowering of plants, the progress and the maturity of the several kinds of grain, the falling of leaves, and other symptoms of decay in autumn. In these observations, a preference will be given to those vegetables and trees which are of the most valuable kind, and which are the most common and easy of observation.

Such is the design before us, the utility of which, provided it shall be properly executed, is too abundantly evident to require any particular illustration. The influence of our atmosphere and of the seasons, in their great variations, on the health of the inhabitants of this country, has been but too little observed. The present inquiry, instituted at different places, in towns on our sea-coast and in the country, will lead to a double comparative view of these subjects: 1. A comparison of the different states of the atmosphere, degrees and variations of heat and moisture, season, vegetation, and the corresponding health or diseases of the inhabitants, in *different* places the *same* year; and 2. A like comparison of the same subjects, at the *same* places in *different* years. Such an inquiry, carefully and diligently pursued, it must be expected, cannot fail of casting some new light on the climate and the diseases of our country.

These observations commenced for January in only three different towns: they have since been commenced, or are about being commenced, in various other places.

*Result of Meteorological and other Observations, for January, 1806; made at MASON, (N. H.) 50 Miles northwest of Boston, by the Rev. EBENEZER HILL; at LEOMINSTER, (Mass.) 45 Miles westwardly from Boston, by ABIJAH BIGELOW, Esq.; at CONCORD, (Mass.) 18 Miles northwest of Boston, by Dr. ISAAC HURD:—For the Medical and Agricultural Register.*

| January,<br>1806. | Mean degs.<br>at sun-ris. | Mean degs.<br>at 2 P. M. | Mean deg.<br>of the mo. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births. | Deaths. |
|-------------------|---------------------------|--------------------------|-------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|---------|
| Mason             | 25 $\frac{1}{2}$          | 33 $\frac{3}{4}$         | 29 $\frac{1}{2}$        | 30th day 55°                   | 18th day 4°                 | W. N. W. & N.        |            |         | 1       |
| Leominster        | 25 $\frac{1}{2}$          | 34 $\frac{1}{8}$         | 29 $\frac{1}{2}$        | 30 51                          | 18 4                        |                      |            |         |         |
| Concord           | 25 $\frac{1}{2}$          | 30 $\frac{1}{2}$         | 25 $\frac{1}{2}$        | 30 48                          | 16 0 $\frac{1}{8}$          | N. E. & N. W.        | 3          | 2       | 2       |

## WEATHER.

| Mason.                                                | Inc.            | Leominster.                           | Concord.                                                                 | Inc.            |
|-------------------------------------------------------|-----------------|---------------------------------------|--------------------------------------------------------------------------|-----------------|
| 3d day, snow, N. fair 10 A. M.                        | 1 $\frac{1}{2}$ | 3d day, snow, N. fair 10 A. M.        | 3d day, snow, N.                                                         | 1 $\frac{1}{2}$ |
| 7th, snow, N. E.                                      | 4               | 4th, rain in the evening.             | 7th, snow, N. E. sprink. of rain.                                        | 2 $\frac{1}{2}$ |
| 9th, snow, N. W.                                      | 3               | 7th, snow, N. E. 4 P. M. rain.        | 9th, snow, N. E.                                                         | 6               |
| 10th, a little snow at evening.                       |                 | 9th, snow, wind northwd.              | 10th, snow evening, S. E.                                                |                 |
| 13th, sprink. of rain and misty, snow at night, S. W. | 18              | 10th, a little snow at evening.       | 13th, rain, snow at 4 P. M. wind W. by N.                                | 9               |
| 14th, snow day and night, N.                          | 7               | 13th, rainy morning, snow at night.   | 14th, snow, N. E.                                                        |                 |
| 15th, cloudy, fair.                                   |                 | 14th, snow and hail day and night.    | 15th, snow in morn.                                                      | 8 $\frac{1}{2}$ |
| 19th, snow began at evening, N.                       | 7               | 15th, snow in morning.                | 19th, snow 5 P. M. N. N. E.                                              |                 |
| 20th, snow, W. of N.                                  |                 | 19th, snow 4 P. M. N.                 | 20th, severe storm.                                                      | 22              |
| 21st, cloudy, freezing mist, still.                   | 22              | 20th, snow, even. mist with rain.     | 21st, cloudy, N. N. E.                                                   |                 |
| 22d, snow 7 P. M. N.                                  |                 | 21st, cloudy, trees covered with ice. | 22d, cloudy, snow, N. N. E.                                              | 22              |
| 23d, snow day and night, W. of N.                     | 22              | 22d, snow at night.                   | 23d, violent storm, 9 P. M. rain thro' the night, snow settled 8 inches. |                 |
| 24th, snow till 9 A. M. fair.                         |                 | 23d, snow, wind northwardly.          | 24th, snow, wind N. N. E.                                                |                 |
|                                                       |                 | 24th, cloudy.                         |                                                                          |                 |
| Total of snow ft. 4                                   | 7 $\frac{1}{2}$ |                                       | Total of snow ft. 4                                                      | 1 $\frac{1}{2}$ |

*Mason.*—The depth of snow was taken either from actual measurement or from the judgment of men who had been where it did not drift; in which case, the mean difference of their opinions has been taken.



*Concord.*—The thermometer abroad, at N. N. E. In the snow storm of the 22d, 23d, and 24th, no deduction is made for the settling of the snow by the rain; the total of the snow for the three days was 22 inches.

The thermometer at Mafon and at Leominster, we understand is situated in an open or some unfinished apartment of the house. This consideration will assist us in reconciling the difference in the result of the degrees of heat in those places and that of Concord. To those who are not particularly acquainted with this instrument, it may be proper to observe, that 32° is called the freezing point, that is, when the quicksilver stands at 32 degrees water freezes; 76° is called summer heat; 98° blood heat; and at 212° water boils.

The result of the degrees of heat for Mafon and Leominster compare very nearly together. There were but very few days in the month, however, in which the state of the thermometer was exactly the same in both places, differing 1°, 2°, 3°, 4°, and in some instances 6°, in one place, from that in the other. Leominster is situated about 18 miles to the east of south from Mafon, upon which you come immediately after descending from off the high lands. For Mafon, see topographical description, page 13 of our first number.

The particular and minute attention of those gentlemen engaged in these observations, is highly gratifying to us, and it is presumed will be greatly satisfactory to our readers.

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## N O T E.

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A COMMUNICATION from a very respectable source, on the planting and pruning of apple trees, has been received; it did not, however, come to hand till our Agricultural department was in type; it is therefore reluctantly deferred till our next number. The attention of the husbandman, on the opening of a new year, is generally

first directed towards his fruit trees, for which reason we have been the more particular on this subject, in our first numbers. It is a practice, however, of our best cultivators, authorized by sound reasoning and by experience, to suspend the operation of pruning for several weeks yet to come.

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THE

# Medical and Agricultural Register.

VOL. I.]

MARCH, 1806.

[No. 3.

## M E D I C A L.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

IF you think the following case comes within the scope of your *infant* publication, and worthy of insertion, you will give it a place, and oblige, perhaps, some of your readers.

IATROS.

### Case.

ABOUT 2 o'clock, P. M. on the 30th. of May, 1805, Miss P—— R—— chewed, out of curiosity, a little of the fresh root of Wake-robbin,\* and incautiously swallowed a small quantity of it. In a few minutes she complained of a burning sensation in her mouth and throat, and of great distress at her stomach; which was soon succeeded with a nausea, and frothing at her mouth: then came on spasmodic contractions of the muscles and tendons of the hands and arms, accompanied with paleness and coldness of these parts: pretty soon afterwards, the spasms also seized her lower extremities, so that she could not walk, even with assistance; and the surface of her body became universally of a purple color: at length her speech was depraved, so that she was unable to talk plainly: finally, spasms with pain, seized the erector muscles of the neck and back, and bent her backward in the manner of that variety of locked-jaw, known among physicians by the term *Opisthotonos*. She still appeared to possess

\* "Cuckowpint. Dragon-root. Wake-robbin. Lords and Ladies."—*Mem. Am. Acad.* vol. I. p. 487. Sometimes also called Swamp-gurnip, I believe.—*Artum, Pharm. Lond.* and *Ed.*

her intellectual faculties, but could not speak. By this time, a dose of the emetic tartar [a puke] was procured and given her; (the family physician being absent from home.) For the space of an hour after taking the emetic, and before it began to operate, the spasms remitted, but did not go off till an hour or more after it had done operating. She brought up nothing but the contents of her stomach, which were her dinner, lately eaten, together with the small quantity of the Wake-robbin root which she had swallowed. She continued to feel, occasionally, some degree of the spasms and pain, with nausea, through the afternoon: she had an uneasy night; and the nausea recurred on the two or three following days, but was felt most considerably in the mornings. She gradually recovered her usual state of health.

The young lady, the subject of this case, is aged 18 years; has black hair and eyes, and a smooth skin; is of a slender constitution, but commonly healthy. No cause could be assigned for the disturbances excited in her system, except the Wake-robbin root; nor as contributing to their aggravation, except her dinner; for she was in ordinary health before taking the root: it is presumed, however, that the effects of it on her system, were somewhat singular and peculiar to her; for it is hardly credible, I think, that so small a quantity as she believed she swallowed, could produce such alarming symptoms in every person.

The pungent and inflammatory acrimony of fresh Wake-robbin root, is well known to most country people, and to physicians. The latter, probably, are generally acquainted with its usefulness in the cure of certain diseases; and a caution is suggested to the former, from the recital of the foregoing case, to be very careful in using it themselves, or in administering it to others who are ignorant of its terrible power, either with a view to impose on them, or obviate their ailments.

D\*\*\*\*\*s, March, 1806.

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*An Account of Resuscitation in a Case of supposed Death from Yellow Fever. In a Letter from Dr. RUSH, [of Philadelphia,] to Dr. COXE.*

[From the Medical Museum.]

SIR,

IN the month of August, of the year 1798, the yellow fever appeared in Marcus Hook, a small village situated on the banks of the river Delaware. The crews of the United

States' vessels *Ganges* and *Retaliation*, which lay along side of the village, were at the same time attacked with the disease. Upon the first indisposition, each person was removed from the vessels and conveyed to tents fitted up for his reception, on an elevated and healthy spot of ground in the neighborhood; where, through the humane attentions of the commander, he was provided with every necessary that his situation required.

Out of sixty seamen, ordinary seamen, and mariners, who had been sent to the tents, many had the disease mildly, some suffered severely, and four died, on the third, fifth, and seventh days, with black vomiting, and other symptoms of great malignity. Of the whole number, I have selected a case, which, from the rareness of its occurrence, may be interesting and important.

The particular symptoms which marked the progress of the disease in this case, from the apparent cessation of life, to its complete resuscitation, I am unable to state, owing to the circumstance of the daily journal remaining in the possession of my assistant, Mr. Parker, after he had retired from the United States' service. What I observed at the time of my visits, which through necessity were short and few, I have correctly stated, and have no reason for doubting the truth of what is farther advanced, from the representation of Mr. Parker.

#### *Case.*

James Clark, an ordinary seaman belonging to the *Ganges*, about nineteen years of age, and of a hale constitution, was attacked on the seventh of September, with the yellow fever. The symptoms were such as characterize the malignant forms of this disease. The force of the disease seemed principally exerted on the arterial systems, while the muscular and nervous systems, appeared to be but secondarily affected. The pulse was depressed at the commencement of the attack, but rose afterwards and became full and strong. Twenty-four ounces of blood, in all, were taken from his arm in the first paroxysm; during which he was copiously purged with strong doses of calomel. On the second day, bleeding and purging were discontinued, and mercurial frictions, together with small and repeated doses of calomel were prescribed in order to produce a salivation. This however could not be effected. The disease, notwithstanding a variety of stimulants, such as brandy, ether, and laudanum, arrived at the last stage, when on the morning of the fourth day, the black vomiting began,

and continued till twelve o'clock at noon; at which time it was said, he had expired. Upon paying my second visit to the tents, at four o'clock in the afternoon of the same day, I saw the body of Clark lying in a coffin, and apparently lifeless. On closely examining it, I observed the pale yellow, that previously tinged the temples, nails, and neck, changed to an orange-like hue, and interspersed with purplish spots, resembling petechiæ. Neither pulse or heat were perceptible, nor was respiration discoverable on the mirror, which was held before the mouth. Putrefaction, however, had not taken place; the lower jaw was still flexible, and upon a more minute examination, I felt (or thought I felt) a slight warmth about the epigastric region. — With such slender and evanescent symptoms of life, experiment indeed promised little. But something I was resolved to attempt; I therefore ordered the body to be covered with warm ashes from the cook's fire, and a gill of very strong brandy to be poured down the throat every half hour. Being called away, I could not wait to see the effect of these remedies; but requested Mr. Parker to continue the use of them, whilst any hope remained of their being successful. On my return, at sunrise, the following morning, I had the pleasure of finding Clark propped up, indulging himself with soup. From Mr. Parker I learned, that about eight o'clock, after he had received a quart of brandy, he began to respire; that the brandy was continued, in the same proportion which I had prescribed, until eleven o'clock, when he was so far recovered as to complain of the warmth of the ashes; that he was then taken out of the coffin, and laid on straw on the ground. Port wine sangree was then substituted for brandy, and was regularly administered till day light, when he refused to take any more, and called for food.

On the treatment of the above case, it may be proper to remark, that, had convulsions or spasms attended the apparent dissolution, I should have hesitated in pouring a fluid down the throat; as when death occurs in convulsions, the glottis [opening of the windpipe] might not be completely closed, while the muscles of the epiglottis [the cover of the opening of the windpipe] partaking also of the general convulsion, might retain it in an erect position: hence a fluid would pass into the lungs, as well as into the stomach; a circumstance which would prevent resuscitation. But in cases like Clark's, where muscular relaxation accompanied the apparent extinction of life, the epiglottis must necessarily be in contact with the glottis, and thereby prevent the admission of a fluid into the lungs.

If the history of the above case should serve to prevent premature interment, and lead to the use of remedies for resuscitation, in doubtful cases of death from fever, as well from causes which induce it suddenly, it will be a high gratification to

Your Friend,

JOHN RUSH.

Philadelphia, August 17, 1804.

*Blood Root, its Efficacy in Jaundice, &c.* By JAMES MEASE, M. D.

[From the Philadelphia Medical Museum.]

*SANGUINARIA Canadensis*, or blood root, red root, is a very common plant in our woods. An inaugural experimental dissertation on it was written by Dr. Downey, of the university of Pennsylvania, in the spring of 1803. Among the virtues ascribed to it in that dissertation, one is unnoticed, which probably renders this plant of more value than any of its other virtues. I allude to its efficacy in removing jaundice. Shoeps barely mentions its use in that complaint; but my authority for its utility therein, is Thomas Cooper, Esq. of Northumberland, who, in a letter which I lately received from him, mentions, that Dr. Smith, of Wilkesbarre, in Luzerne county, has for some years past used the powdered root, with great success, in doses of fifteen or twenty grains; and further observes, that it is a chief ingredient in the quack medicine, known by the name of *Rawson's bitters*.

## AGRICULTURAL.

For the MEDICAL AND AGRICULTURAL REGISTER.

*Observations on Orchards, with Directions for Planting and Pruning Fruit Trees.*

THERE is scarcely any part of a farm that is esteemed so useful and valuable as the orchard. Yet, perhaps, it is that which is the most neglected. If you count the number of apple trees on a farm, or even in a whole township, probably not one tree in ten will be found to pay, by its fruit, for the ground it occupies; either because it bears little fruit, or what it bears is bad, or ripens out of season, or is dropped in

the pasture, where the cows are greatly injured in their milk, by eating the wind-falls. A single tree has been known to produce in one year, apples enough for six or seven barrels of cider; while there are many scores of dwarfish trees in bad condition, slowly decaying, with deep mortal wounds, and on a barren soil, that afford less fruit in twenty years.

It would be a great public benefit if your Register should rouse the attention of farmers to a better system of treatment of their apple trees. The want of rules and directions is not half so much to be lamented as the general want of care. Indeed so little foresight and judgment appear in many instances of planting orchards, one would suppose the risk was considered as falling on the *trees*, not on the *owner*. He seems to say, grow or die, and yet he manages the matter so unaccountably that they can do neither for the first eight or ten years.

Young trees are chosen from a nursery, rank and tender as weeds with the forcing power of hoeing and manure. They are twisted and torn out of the ground, and the mangled roots are crowded into a small hole of the depth and dimensions of a peck measure. The tree, pent up as it were in an iron pot, either dies in the summer, or the efforts nature makes to break out by the roots from the hard little circle in which they are confined, are made in vain. These efforts are renewed, and again in vain, the next summer. Thus the tree is dwarfed, every scratch on the bark cankers and spreads a rot to the heart, and in seven years it has scarcely made any advances. The life of such a tree must be short, sickly, and barren.

It is recommended to prepare the ground for an orchard with diligence before the trees are planted. Dig holes as large as the small wheel of a waggon, at least a year before you set the trees. Throw the top of the earth into a heap by itself; with a spade and small iron bar loosen the soil eighteen inches deep, and throw out this under bed of earth into another heap. The ground thus exposed so wide and deep to the sun, rain and frost, and the wider and deeper the better, will mellow and sweeten. In the spring, say in April, choose young natural or ungrafted trees from a nursery, that are free from wounds on the bark. Carefully take them up with their whole spread of roots. Half the trees usually get their death wound in taking up. In planting them out, first prune away broken and diseased roots, and such as cross each other, and then draw round them into the hole the top of the ground that was laid in the pile the year before; it will be mellow and rotten. After this throw in the other heap.

So large and wide a hole will afford a space for the roots to spread as good as tilled land. Before the weather becomes

very dry, a fork-full of old hay should be flung on to the dug circle in which the tree stands : this will prevent the trees perishing in July and August with drought. Carefully remove this hay in November that the field mice may not find a harbor to gnaw and spoil the tree in the winter. The hay should be replaced or more brought the second summer, after which the tree having filled up with its roots the wide circle in which it was planted, will begin to break out of it into the harder earth.

Now, if your tree is healthy and flourishing, you may graft it, and this operation will augment the vigor of its growth. Care must be taken to form the head of the tree ; by removing the twigs that it is foreseen will interfere, a spreading shape may be given to the top, and the tree will have little future occasion for pruning.

But as this early care may not happen to be bestowed, or may not be skilfully applied, almost every spring will call for a sparing use of the pruning knife. Pruning should be done in the spring after the winter has really disappeared, and the weather become soft. But it should by no means be delayed till the month of May : for after the flow of the sap is great, the bark at the lips of the wound is apt to peel or gape open ; and as far as the bark peels, the wound will spread. You should prune off the limbs close to the place of their insertion into a larger limb, leaving no stump. If after this, the bark should be raised up by the air half an inch from the place where you cut, a very deep and almost fatal wound will be left. There is reason to believe that the bark will often adhere closely to the wood when you prune, but some days afterwards the air or the flow of the sap will cause the bark to rise. On these accounts it seems prudent to prune rather early in April, so that the wound may dry and harden before the bark inclines to peel or separate from the wood.

If wounds are made at this season very smoothly, and the limbs cut off are small, nature will soon cause the new bark to spread over the wounded place. No harm is likely to ensue unless the naked wood rots before the bark spreads over it. If the limb cut off be large, this rot will take place ; and rely upon it every great wound is a great disease. It is better to cut of two, three, or ten small limbs, than one very large one. When this cannot be avoided, make the cuts sloping so that the water may run off.

Much has been said of Forsyth's composition. It deserves commendation. No doubt can be entertained that trees scarcely feel any injury from pretty severe prunings, if the air be shut out from the naked wood. But there seems to be no



reason to hold his recommendation of his composition as useful to nourish or stimulate the constitution of the trees to be any thing better than quackery. Common clay on a wound with a piece of bladder bound on with yarn to keep it from cracking or washing off, would answer every purpose of his composition, because it would keep the air out. Clay mortar worked with cattle's hair, which is a good mixture for grafting, would do for covering wounds, and to fill up the hollows and rotten places in the trunks of trees; if rags or even paper can be secured upon the surface over the clay to keep off the violence of the rain, it would answer.

Nor does it seem clear that the removal of every particle of the cankered wood, as Forsyth directs, is necessary to the cure of a diseased tree. Fill it up with clay mortar mixed with hair, and exclude the air and water, the fermentation must of course cease, and nature, relieved from her malady, will hasten to renew the branches of the tree. Stop the rot and you stop the disease.

There seems also to be good reason to question whether Forsyth has been able to renew the wood of a tree where nothing remained sound but bark: yet this is what he pretends to have done.

☞ On the whole, to have flourishing orchards, choose good land, and keep it in good heart without ploughing. Prevent wounds on your trees, but when they happen prevent the air and wet from all communication with them.

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*Further Extracts from a Paper published by the Massachusetts Agricultural Society, on Gypsum, or Plaster of Paris. By a Member of the Kennebec Agricultural Society.*

"THE manner in which plaster produces its good effects, when employed in agriculture, appears never to have been made the object of minute scientific examination. Farmers have commonly guessed concerning it, and philosophers on the whole, have done little better. \* \* \* \* \*

One circumstance is learned from chemists, namely, that plaster quickens the *progress of putrefaction* more than time; and this singly is of considerable moment. If plaster hastens the dissolution of animal and vegetable substances when deprived of life, it of course prepares their particles for immediately entering into a new form, as vegetables; and thus contributes to the great circulation of matter, which prevails throughout organized nature. There seems also to be some peculiar connexion between plaster of Paris and *moisture*, when

the plaster is brought into a state *to act as manure*; for it is said, that garden beds strewed with it are kept light and mellow, and free from baking and dryness; and that plants acted upon by it, exhibit the dews longer and more plentifully in consequence of it. The dryness of the air in the chief part of the United States, makes this a valuable quality to the American farmer.

Plaster is now commonly first pounded and then *ground*, so as to measure from 20 to 25 bushels by the ton; but it is said to be best when a bushel weighs a long hundred, making 20 bushels to the ton.

Plaster is commonly used upon different *plans*, varying according to its objects. If designed to last for a *term of years*, it is strewed (in the United States) in the shape of powder, at the rate of 3, 4, 5, and even 6 bushels to the acre. But the present opinion of some American farmers, who have much experience in it, seems in favor of an *annual* application, wherever it is proper to use it at all. The yearly quantity is in general little less than a bushel to the acre; though some, for a time, put considerably more; and an extra quantity is commonly advisable in the first year.

If it be wished to give a spur to the growth of *seed*, the seed is to be wetted and rolled in plaster; and when thus coated, it is to be sown in the usual manner. For *Indian* corn, not only this coating with plaster is proper, but a table-spoonful of plaster is afterwards to be strewed upon each hill or bank, when first hoed; and some add a second spoonful over the second hoeing; though the necessity of this last operation is doubted by others. In the case of *grain* and *grass seed*, sown together, some not only wet and coat the seed, but strew more plaster upon it, when first scattered upon the field; and then cover the whole with the harrow or plough. Others coat the seed, but wait till the crop appears above ground, before they give the top-dressing with plaster. And this seems the most prudent method; for by strewing the plaster too early, some *weeds* may be favored; whereas the plaster ought to be applied as exclusively as possible to the *crop*. Those who sow their *grain* in the *autumn* by *itself*, and add clover afterwards during the winter, by sowing it upon the snow, may coat the seeds in each case with plaster; and when the ground settles and dries in the spring, they may scatter plaster over the whole.

As to the *time of the year* for applying plaster,—some scatter it whenever the grass is bitten very close, or else immediately after close mowing, provided cattle are not to follow; others do it just before the commencement of winter; others throw it upon the snow; and others sow it immediately when the

ground becomes dry, after the departure of the snow,—avoiding frozen ground, because it might there be blown away, should the field be small, or in any event be driven into heaps. Some divide the dose for grafs, putting on one half before vegetation begins in the spring, and the other half when the grafs has started. It seems on the whole reasonable to suppose, that the plaster ought not to be strewed before it can be of use ; left among other reasons, it should dissolve and be washed from the soil, or lest the mixture made from it should sink too deep into the earth, or lest its virtues should in any other manner be prematurely dissipated. Plaster in general (as has been mentioned) should be applied to *seed* at all seasons ; especially if the seed be sown late in the period appropriated for it. It should be put upon *crops* while in their infant state ; especially with a view to secure the early shooting of the fibres, particularly in the spring, and in countries which are hot or dry. As to winter grain, indeed, it is probable that plaster will be of little service to it till the spring opens, unless applied to the seed, or unless the crop be backward. Experiments, however, must decide many of these cases ; and what has been said, will in general shew where to employ these experiments.

With respect to the *soils and situations* suited for plaster,—it is clear that plaster may be thrown away upon wet soils and wet climates : it agrees, however, in general, with dry loams and hungry soils ; it is favorable to hilly land, where the water cannot lodge ;\* and it checks the baking of clays : it is commonly supposed to be useless near the sea. As the sea winds are usually moist, cool, and salt, we shall not wonder, where these prevail, that a manure, favoring moisture and prospering with heat, and containing some principles analogous in a certain degree with those of sea salt, should find little room for exercising its virtues. It may, however, happen in a great continent, where dry winds and a dry atmosphere occur, that plaster shall furnish instances of its success, even near the sea ; of which I have heard examples in New Hampshire and the district of Maine. Climates which are moist, and deficient in summer heat, (as Great Britain and Ireland) are not among those where plaster has had the most numerous advocates : nevertheless, in the southern parts of England, situations are found where plaster meets the most flattering success. On the other hand, the dryness, the heat, and the clear and long continued sunshine of the American climate, during summer, promise commonly, a favorable opportunity for the action of

\* The farms of general WASHINGTON, being stiff, cold, and mostly clayey, received no benefit from plaster, though tried in various manners : yet the general “believed in, and was friendly to gypsum as a manure.”

plaster ; provided no accidental moist air interferes, whether arising from the sea, the great lakes of the interior, or extensive marshes or inundations ; and provided the soils and the objects of the culture be adapted to it. In general we may presume, that *heat* has a material influence in the process by which plaster renders service to vegetation ; because heat has a great effect in promoting chemical solutions and decompositions ; especially in conjunction with moisture, with which plaster forms some secret alliance.

The *objects* to which plaster has hitherto most frequently been applied, are grasses, also grain, at least spring grain, Indian corn, flax, buckwheat, pulse, and young fruit trees. To none of the kinds of grass, however, has plaster seemed better suited, than to red clover ; red clover being fond of a dry loam, to which plaster is itself particularly suited.

It has been asserted, that plaster is *capricious in its effects* ; this complaint is natural, when so little is known of the causes which make the plaster to succeed or fail. The farmer, however, should recollect, that his disappointment, if it occurs, may be owing to the use of plaster, either in improper quantities or at improper seasons, or for improper soils or improper objects ; and that the employment of it may require to be for a time suspended. The plaster also may not be of a perfect quality, either from some original defect, or perhaps from having been kept too wet. Much also may depend upon the weather which follows the use of it. Plaster in general, to use the phrase of the Pennsylvanian farmer, *requires something to feed upon* ; (as rotten leaves and roots, and certain manures ;) without which, its powers for a time, in a manner stand still.

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## MISCELLANEOUS ARTICLES,

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### ARTICLE VII,

#### *An expeditious Method of destroying Rats.*

FOR the discovery of the following *complete* remedy, we are indebted to G. W. MILLER, an ingenious apothecary of Wernigerode, in Germany ; he candidly acknowledges to have derived the first hint for such a purpose, many years since, from a book written by a celebrated economist ; in short it will be found the most expeditious and effectual mode that can be pursued. A capacious cask [covered at top] of moderate height must previously be procured, and put in the vicinity

of places infested with rats. During the first week this vessel is employed only to allure the rats to visit the top of the cask, by means of boards or planks arranged in a sloping direction to the floor [or bottom of the cellar,] which are every day strewed with oat-meal, or any other food equally grateful to their palate; and the principal part of which is exposed on the surface. After having thus been lulled into security, and accustomed to find a regular supply for their meals, a skin of parchment [or sheep-skin] is substituted for the wooden top or cover of the cask, having been previously cut, with transverse incisions, [thus +] for several inches through the centre of the skin, so as to yield at the slightest pressure. At the same time, a few gallons of water, to the depth of five or six inches, are poured into the empty cask. In the middle of this element, a brick or stone is placed, so as to project one or two inches above the water; and that one rat may find on the former, a place of refuge. These preparatory measures being taken, the boards as well as the top of the cask should now be furnished with proper bait, in order to induce them to repeat their visits. No sooner does one of these marauders plunge through the section of the parchment in the vessel, than it retreats to the brick or stone, and commences its lamentations for relief. Nor are its whining notes uttered in vain; others soon follow, and share the same fate, when a dreadful conflict begins among them, to decide the possession of the dry asylum. Battles follow in rapid succession, attended with such loud and noisy shrieks, that all the rats in the neighborhood hasten to the fatal spot, where they experience similar disaster. Thus hundreds may be caught by a stratagem, which might be greatly facilitated by exposing in the cask a living rat taken in a trap, or purchased from a professional rat-catcher. In this way those destructive vermin may be suddenly exterminated from a house or neighborhood at very little trouble or expense,

*Domest. Encyc.*

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#### ARTICLE VIII.

##### *GOLD discovered in North Carolina.*

IN Cabarrus county, (N. C.) gold has been picked up in lumps and grains to the amount of many thousand dollars. It was discovered in the bottom of Meadow Creek. This is a small stream which falls into Rocky River, a principal branch of the Pedee. The first piece of this precious metal was found by a boy, in July, 1803, who was exercising himself by shooting small fishes with a bow and arrow. The masses were of different sizes, from very small grains to the unexampled bulk

of a lump weighing a quarter of an avoirdupois hundred ! which transcends by far the piece of native gold sent from Mexico to Spain, for the royal cabinet, on account of its extraordinary size. This Carolinian specimen of 28 pounds, on being melted and refined, lost only fifteen per cent of its weight. The smaller samples lost only from two to five per cent. Other pieces have been found of 4 and 5 pounds weight. From a report of the Director of the mint, it appears, that about *eleven thousand dollars* of the gold coin, issued from the mint during the year 1804, was formed of this native gold of Cabarras county.

The face of the country in the neighborhood of this Pactolian water, is, for the most part, very uneven. The soil is barren and rocky. The strata of the rock are nearly vertical ; and their direction is from N. E. to S. W. like the other great strata throughout the United States. In the interstices and chinks between those strata of rock over which Meadow Creek runs, the pieces of gold are found, intermixed with sand. Flint (quartz) and a blue colored rock (granite) are the prevailing kinds of rock hereabout. Another sort of earthy matter is irregularly scattered around, which is perfectly black, and covered with a substance resembling foot ; as is also another kind of substance, which looks like a mixture of tar and sand.

A specimen of this gold, in the possession of Dr. MITCHILL, is of a rich and beautiful yellow, blended with particles of quartz : except this addition, it seems to be remarkably malleable and pure.

As the larger lumps are now chiefly picked up, the people are engaged in washing and searching the sand for smaller particles : and it is said, that the quantity procured in this way, is very well worth the seeking.

*Medical Repository.*

#### ARTICLE IX.

##### *Of the Ages of different Trees—how determined.*

THERE is a circumstance attending the growth of trees, which serves to denote their age with great accuracy. The body of a tree does not increase by an universal expansion of all its internal parts, but by additional coats of new wood ; and these are formed every year, by the sap which runs between the bark and the old wood. When a tree is cut down, this process of nature becomes apparent in the number of parallel circles, or concentric rings, which spread from the

centre to the circumference of the tree. In many observations made by others, and by myself, upon trees whose ages were known, the number of these circles was found to agree exactly with the age of the tree. By this method of computation, I have always found the pine to be the most aged tree of the forest, several of which were between three hundred and fifty and four hundred years of age. The largest trees of other species, are generally between two and three hundred years. In the more advanced periods of vegetable life, this method of computation often fails; the decays of nature generally begin in the central, which are the most aged parts. From them the mortification gradually extends to others; and thus the internal parts of the tree die in the same order in which they were produced; the progress of death regularly and steadily following the same order and course, which had been observed in the progress of life. In this state of a tree, no computation can be made of its age; but it seems most probable, that the time of its natural increase and decrease, are nearly the same; and that the natural period of vegetable life is double to that, which the tree has attained, when it first begins to decay at the heart.

*Dr. Williams's History of Vermont.*

#### ARTICLE X.

*A Bill of Mortality in Shrewsbury, for the Year 1805; communicated in a Letter by the Rev. JOSEPH SUMNER, dated February 23, 1806.*

SHREWSBURY, according to the last census, contains 1058 inhabitants. The whole number of deaths for the last year (1805) were 19, viz.

| Complaints. No. Age. |               |         | Complaints. No. Age. |               |        |
|----------------------|---------------|---------|----------------------|---------------|--------|
| In February.         | Pleurisy      | 1 60    | July.                | Epilepsy      | 1 71   |
|                      | Typh. fever   | 1 83    | August.              | Convulsions   | 1 Inf. |
|                      | Palsy         | 1 75    |                      | Consumption   | 1 22   |
|                      | Unknown       | 1 Inf.  | September.           | Consumption   | 1 27   |
| March.               | Phagedæna     | 1 39    | October.             | Typh. fever   | 1 3    |
|                      | Convulsions   | 1 Inf.  |                      | Mortification | 1 77   |
| April.               | *Ang. Maligna | 2 3 & 2 |                      | Apoplectic    | 1 81   |
| May.                 | Ang. Maligna  | 1 3     | December.            | Palsy         | 1 86   |
|                      | †Hepatitis    | 1 62    |                      | Hydroc. Int.  | 1 2    |

From the year 1762 to 1802, the deaths were 491; being upon an average between 12 and 13 in a year: the births were more than twice that number. When the census was taken in the year 1790, there was about one in fifty of the inhabitants, more than 80 years of age.

\* Malignant fore throat.

† Inflammation of the liver.

## ARTICLE XI.

*Result of Meteorological and other Observations, for February, 1806; made at PORTSMOUTH, (N. H.) by Mr. CHARLES PEIRCE; at MASON and CONCORD, as in our last Number; and at BOSTON:—For the Medical and Agricultural Register.*

| February,<br>1806. | Mean degs.<br>at sun-rise. | Mean degs.<br>at 2 P.M. | Mean deg.<br>of the mo. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births. | Deaths. |
|--------------------|----------------------------|-------------------------|-------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|---------|
| Portsmouth         | 26 $\frac{1}{4}$           | 39 $\frac{6}{7}$        | 31 $\frac{1}{2}$        | 20th day 53°                   | 6th day 10°                 | W. & N. W.           |            |         |         |
| Mason              | 28 $\frac{1}{4}$           | 36 $\frac{3}{4}$        | 32 $\frac{1}{4}$        | 20                             | 57 6 9                      | W. & N. W.           |            |         | 1       |
| Concord            | 21 $\frac{1}{2}$           | 35                      | 30                      | 20                             | 54 14 0                     | N. W.                | 2          | 4       | 3       |
| Boston             | 27 $\frac{0}{4}$           | 38 $\frac{1}{4}$        | 32 $\frac{1}{2}$        | 20                             | 59 6 11                     | W. & N. W.           |            |         |         |

## WEATHER.

| Portsmouth.                      | Mason.                   | Concord.             | Boston.                            |
|----------------------------------|--------------------------|----------------------|------------------------------------|
| <i>Inc.</i>                      | <i>Inc.</i>              | <i>Inc.</i>          |                                    |
| 1st d. snow mod.                 | fnow, S. E.              | 1 fnow, fleet, N. E. | spitting of fn. N. E.              |
| 3— vio. fn. stor.                | fn. 8 A.M. N. E.         | 10 fn. 8 A.M. N. E.  | 8 $\frac{1}{2}$ fnow, 9 A.M. N. E. |
| 9 A. M.                          | 3                        |                      |                                    |
| 7— flying clouds                 | fnow, 2 P.M.             | 1 cloudy             | cloudy                             |
| 8— mixt. of fn. & rain           | rainy                    | rain, foggy          | rain, fair at evening              |
| 9— high winds                    | very high winds          | fnow, N. W.          | 2 fnow squall, N.                  |
| 10— lowering                     | cloudy, still, fair      | fair, cloudy         | fair, still, cloudy                |
| 11— snow, E.                     | 1 cloudy, N.             | cloudy, N. E. & W.   | cloudy, N. E.                      |
| 12— fn. stor. P. M.              | 3 fnow, 1 P.M. N. E.     | 5 fnow at even. E.   | 3 $\frac{1}{2}$ fnow at evening    |
| 15— thawey, some rain            | evening, sprink. of rain | rain at sun-set      | 3 $\frac{1}{2}$ sprinkling of rain |
| 18— mist of fn. & hail           | 1 frozen rain & fn.      | fnow, cloudy         | rain at evening                    |
| 20— remarkably warm; night, rain | night rain               | general thaw         | night, rain                        |
| 27— mod. fn. stor.               | fair                     | cloudy               | 1 sprinkling of rain               |
| Tot. 7.                          | ft. 1 6.                 | 1 0 $\frac{1}{2}$ .  |                                    |

*Mason*, 22d, fnow mostly gone in open land. 23d, robins and other spring birds were seen.

*Concord*, 21st, Mr. ROLAND PARKER, son of Dr. PARKER of Harvard, passing through town, drowned; occasioned by sudden rise of the river.

## ARTICLE XII.

*Bills of Marriages, Births, and Deaths; communicated by Gentlemen of the Clergy in their respective Towns; for 1805.*

| Towns.              | Last Census. | Marriages. | Births. | Deaths. |
|---------------------|--------------|------------|---------|---------|
| Southborough        | 871          | —          | 28      | 6       |
| Stonham             | 380          | 3          | 11      | 14      |
| Danvers (N. Parish) | —            | 4          | —       | 15      |
| Middleton           | 598          | 8          | —       | 7       |
| Townsend            | 1159         | 8          | —       | 25      |
| Pembroke (E. Par.)  | —            | 8          | —       | 7       |
| Athol               | 993          | 7          | 50      | 12      |
| Parkersfield        | 977          | 7          | 18      | 6       |



## N O T E S.

### *To the Editor of the Medical and Agricultural Register.*

SIR.....THE appearance of so useful a work as the *Register* promises, must be a source of pleasure to every person who has in view the happiness and prosperity of his country. That it may meet with such patronage as its usefulness deserves, is the sincerest wish of the writer. But the introduction of some appropriate pieces of Poetry, I think, would be an elegant improvement of the work. Dr. ARMSTRONG's celebrated "*Art of Preserving Health*," combines both beauty of expression and solidity of remark. That this truly useful poem may appear in the *Register*, is the wish of one subscriber, and will perhaps meet the approbation of many. A NEW HAMPSHIRE SUBSCRIBER.

"THE introduction of some appropriate pieces of Poetry" into the *Register*, is a measure we had previously contemplated. Pains have already been taken to make a collection: some pieces hitherto unpublished, are in expectation. In the mean time, we shall comply with the wishes of our correspondent, and present some extracts from the poem called for, in our next number.

OUR readers in this number will find a considerable increase of original matter, and that of a most interesting nature. A communication on the "*Natural History of the Horse-Bee*," another on the "*Angina Maligna, or Ulcerous Sore Throat*," are very thankfully received, and will appear in our next number.

THIS early attention of our correspondents is highly gratifying to us, and, it is presumed, will be equally so to our readers. We hope for an in-

crease of these favors. It is our wish, so far as possible, that the *Register*, in a great measure, should be filled with original communications. This, however, it must be remembered, is a circumstance not always to be controlled by any wishes or resolutions of our own. As the husbandman, having prepared his ground, and sown his seed, looketh unto Heaven for those alternate rains and sunshines, which may cause it to spring up and prosper....so we, with much labor and considerable expense, having opened a ready and a convenient channel of communication, on subjects which respect the health and the agriculture of our country, our expectations now are unto the experienced, the observing, and the wise, for those intelligent communications which shall cause it to prosper in our hands. There is a treasure of observation in our country, continually accumulating with individuals, which being promulgated, makes not them "*the poorer*," but makes her "*richer indeed*."

### *To the Agents for the Register.*

OUR Agents who wish for any attention from us, in forwarding their bundles by the stages, mail, or otherwise, will give particular directions, (those who have not done it,) which will always be carefully attended to.

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### CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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THE

*Medical and Agricultural Register.*

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VOL. I.]

APRIL, 1806.

[No. 4.

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M E D I C A L.

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DR. ADAMS,

I HERE present you, sir, with some observations on one of our endemics, which every season makes large additions to the number of its victims. My wish, sir, is, that people would view the complaint as in fact it really is—*not contagious*. It is to be feared that many have suffered for want of proper attention in nursing, if not for medical assistance; and if these remarks should have the good fortune to “do away” unnecessary fear, I shall feel satisfied. The theoretical part, as applicable to other diseases, has no claim to originality; the practical part, from experience I may venture to recommend.

Should you, sir, upon perusal, find it void of “idle speculation and mere theory,” and worthy a place in your Register, by inserting it you will oblige

Your humble servant,

A. B.

Angina Maligna, or Ulcerous Sore Throat.

It is generally ushered in with alternate heats and chills, great languor, anxiety, nausea and vomiting, sometimes purging, acute pain with vertiginous affection of the head, intense thirst; very frequently a florid appearance, with some tumefaction of the fauces, though not sufficient to impede deglutition; pulse small, frequent, and irregular; tongue moist, sometimes covered with a thick yellowish slough; skin dry and contracted; on the second or third day generally efflorescence

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appears on the skin, with an abatement of every symptom; on the fifth or sixth day from the attack, sometimes later, efflorescence disappears, succeeded by desquamation of the cuticle.

It has ever been the opinion of physicians, that this disease was contagious; that the infectious miasma, floating in the atmosphere, was inhaled with the breath, or swallowed with the saliva, and from its immediate contact produced the tumefaction of the fauces: but this is not invariably the case; one in four perhaps will have not the least enlargement of the maxillary glands. Now the question will arise, Can the complaint be communicated in any other way than the ones before mentioned, allowing it to be contagious? I am aware that DARWIN mentions the instance of an attendant being under the necessity of frequently applying a sore hand to the sick, who in consequence of it was immediately attacked, and died of the complaint. Is it not more probable, from his (the attendant) exposed situation, that he would have contracted the complaint by inhalation?

We contend that the complaint is not contagious, and our opinion is founded on observation. In the two extremities of the same neighbourhood many cases will occur; but in the intermediate space, notwithstanding a daily communication with the sick, there will not be a single instance. The nurses and attendants oftentimes escape, whilst others in the same house and neighborhood, who have had no communication whatever with the diseased, will be attacked.

We offer, as another reason to prove its non-contagiousness, the different appearances put on, in the same stage of the complaint, in different subjects. In some there is great enlargement of the fauces, attended with ulcerations, without the least efflorescence; in others, a full efflorescence, without any tumefaction of the fauces; and in some neither. The tumefaction of the fauces we do not consider as proof that a "putrid virus," or "miasma sui generis," (as they are pleased to term it) was inhaled at inspiration, or swallowed with the saliva. The use of glands is to secrete or separate a fluid from the circulating blood. Is it, then, at all improbable that the glands should be affected with inflammation and enlargement in secreting a caustic fluid which has power to erode and excoriate the skin itself?

We believe the primary cause of the complaint to be torpidity of the liver, induced by the debilitating effects of heat, or quick transition from heat to cold. It has been satisfactorily demonstrated, that food, taken into the stomach, has a direct tendency to pass into acetous fermentation, and that

the bile, the basis being alcaleous, is a provision of nature, to counteract that disposition. Whenever, therefore, a partial or complete suspension of the natural action of the liver, from whatever cause, takes place, acetous fermentation or septic acid is consequently produced; this acid, lodged upon the stomach and bowels, is taken up by the absorbents, and by a very natural action is thrown upon the skin, producing, from its causticity, efflorescence and desquamation.

In the method of cure, it is necessary to excite a natural action of the liver, to correct and obtund the acid already collected on the stomach and bowels, and to assist nature in throwing off the complaint in her own way, by the skin; these intentions are effectually answered by the use of emetics, alcaleous salts, and diaphoretics: the emetic to be made use of is a combination of ipecacuanha, turpith mineral, and salt of tartar; to be given in quantity sufficient to produce one or two ejections, and repeated every sixteen or eighteen hours, until it produces copious perspiration. After the emetic, to allay the thirst, a weak solution of salt of tartar in common water with vinum antimonii to be taken freely. When the patient is comatose, as is often the case, and the stomach cannot easily be excited by an emetic, the use of epispastics have been found very serviceable. Where there is ulceration of the fauces, frequently touching them with the powder of allum, or gargling the mouth with lime water, gives a check to their increase, and disposes them to heal.

Here suffer me to caution the practitioner against the precipitate use of cathartics, even the mildest. Cathartics, every species of them, operate by stimulating the orifices of the absorbent vessels, thereby producing a retrograde motion of them, and consequent discharge of their contents. We suppose absorption of the septic acid to have taken place from the commencement of the attack. The practitioner will probably not be called in for some hours; by this time the morbid matter is making its way through the skin; then, by the use of cathartics, the discharge is diverted and brought back upon the bowels, where it becomes completely concentrated, and producing almost immediate sphacelation, convulsions and death ensue. No discharge from the bowels should be solicited or admitted; even a moderate diarrhoea should be immediately restrained. After desquamation of the cuticle, we are assured that the exciting cause is removed; then gentle doses of physic, by emptying the bowels, are of service.

To the Editor of the MEDICAL AND AGRICULTURAL REGISTER.

SIR,

IT is with pleasure and pride, I congratulate the citizens of New England, and of the United States in general, on the establishment of a work of such general utility, as the *Medical and Agricultural Register*; and most sincerely wish that the encouragement given to its publication may be as lasting as its effects will be beneficial. Such a work has long been wanted in the walks of science and art. The periodical ephemera which now-a-days solicit the patronage of the public, are hardly worth the perusal of those who wish to acquire useful knowledge. They generally abound in essays on fashion, love verses, and scraps from the dead languages. In short, their object is to give amusement; while the design of your work is to render information, on subjects which are interesting to every grade of being, from the king on his throne to the peasant in his cottage.

On the subject of the *yellow fever*, (or *plague*, as it is sometimes called) much has been said and written, yet little satisfaction has been obtained, relative to the fact, whether a cure can be effected in this most destructive of all diseases. Much division likewise has arisen on the treatment of a case of yellow fever:—a younger son of GALEN,* therefore, (both for his own satisfaction and for that of others,) respectfully solicits, from some of your elder medical correspondents, an answer to the following

Query.

Is the mode recommended by Dr. RUSH, of Philadelphia, that is, purging and bleeding, the most proper method of treatment in a case of *yellow fever*?

Yours, &c.

Cambridge, March 20, 1806.

WACHUSET.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

NOTICING in No. II. page 29, the following question, I subjoin an answer; which, if you should be favoured with nothing better, you will please to introduce into your publication, and oblige

IATROS.

* The phrase, "a son of GALEN," is synonymous with, a physician.

EDITOR.

Question. Why is it that the ravages of the *consumption* are so much greater with the female sex than with the male?

Answer. The greater delicacy of constitution, or the superior susceptibility of impression which characterizes the female sex, together with their peculiar customs, modes of life, &c. all which predispose them in an especial manner, to that *inflamed state* of, the sanguiferous system which I consider as constituting the *essence of consumption*.

AGRICULTURAL.

*Natural History of the Horse-Bee, with a Variety of Experiments and Observations on Bots, very interesting; communicated in a Letter from the Rev. ROWLAND GREEN, jun. dated Mansfield, February 20, 1806.**

DR. ADAMS,

WITHIN the circle of my acquaintance there has been many horses lost by bots. This was considered as a growing evil, and prompted the writer to endeavor to trace them through their several stages. Many experiments were made to ascertain facts, from which the writer has not knowingly deviated. Imperfect as the history is, it is offered for your perusal; and if you should think it would be beneficial to the public, or be the means to lead to some more effectual remedy, you may make what use of it you shall think best.

Natural History of the Horse-Bee.

THE natural history of horse-bees is involved in obscurity. Many concurring circumstances hinder us from exhibiting a complete history, their economy being different from that of other insects. They are, in a certain period of their existence, placed beyond the scope of observation; hence it is almost impossible to trace them from their first or imperfect state to their last or perfect.

They are the most contemptible of all insects; and there is scarcely any part of their existence in which they are harmless. From this circumstance, the following observations and experiments were made, hoping that they would lead to the discovery of some effectual remedy.

* This subject might perhaps with more propriety have been introduced into our medical department; it was not, however, so convenient.

Many valuable horses are lost by these insects, which (while in their imperfect state) for a season inhabit the stomach, prey upon it, destroy its texture, and introduce convulsions and death.

The insects, in their perfect state, commonly present themselves to our observation; therefore we shall begin with them in this state, and endeavor to trace their offspring through their various gradations of "youth, vigor, and old age," or until they arrive to the perfect state, which is completed in about twelve months.

The insects appear towards the last of June or first of July, but are most numerous in August and September. Few are to be seen after one or two cold evenings. In 1801 they appeared on the 22d of June, and towards the last of September following there was a severe frost, after which but very few were seen, although very numerous before.

There are two kinds, one larger than the other. The difference in their appearance is, the smaller kind have generally more down, and of a darker color than the larger; also, the smaller have transparent wings, but the wings of the larger kind have darkish shades. The principal difference in their economy is, that the larger kind generally cast their eggs on those parts of the horse where he can bite, especially on the anterior legs, but never under the throat; whereas the smaller never cast their eggs on any part of the horse except under his throat. These last prove very troublesome to the horse in the summer season, as any farmer can testify. Each kind varies in size, but in general they are about three-fourths of an inch in length. The body of the female is much larger than that of the male, it being conical, or ending in a tube, (through which the eggs are passed) which when they fly is folded up. They are very expeditious in cementing their eggs to the hair, especially the smaller kind, which do it with incredible quickness.

The eggs are fastened to the hair by a strong cement, which neither the heat of the animal, combined with moisture, nor frost, will dissolve. They are about three-fourths of a line in length, and of a light yellow color; and are always placed on the hair with the largest end downwards. One female, of a middle size, was known to contain 891 eggs—this being the last work assigned, which when concluded, the male and female perish.

It has been supposed that the horse's stomach was the only fit place for the eggs to hatch, and that the eggs were taken in by the horse biting himself, &c. but this is not well founded. These eggs, like all others, require a certain time to hatch.

The insect in miniature must have time to expand, before it can burst from its confinement; and this it may do, if the atmosphere is of a proper warmth, in about 20 days * after the egg is cast; but they do not generally burst the eggs so soon, either from cold weather, † (which retards their coming out, and perhaps their growth,) toughness of the shell, or for the want of pressure. When the insect is formed, and ready to break from its prison, it seems to wait for some pressure, on which the shell is broken at the largest end; and the insect, though very small, appears to be active. When this minute creature bursts the shell by its own accord, it commonly remains for some time only a part out of the shell, waiting perhaps for the horse to take him in. They are now ready to enter the horse's stomach, which they do by the horse biting himself or others: or they may fall on the grass, and be taken in while the horse is feeding. It is probable that those of the smaller kind, under the throat, may travel to and enter the mouth, and from thence be carried into the stomach.

These young bots (commonly so called) are provided with two sharp hooks, by which, when they arrive at the stomach, they take hold, and there prey upon the horse until they arrive to their full growth: but fortunately very few come to maturity, most are destroyed in their infancy; yet it is too often the case that too many remain consistent with the life of the animal. When they are full grown, they are about three-fourths of an inch in length, and about one-fourth of an inch in thickness at the larger end, which has every appearance, to the naked eye, of being the head of the insect, but the reverse of this is true. At the smaller end (which is somewhat pointed) are the two hooks by which they hold fast. They are covered with a thick tough skin, with ten folds or rings, which seem to be a chain of annular muscles, whose fibres being contracted render the rings more narrow than before, and by these means they move from place to place, stretching forwards and taking hold with the hooks, and then contracting themselves, which contraction draws them onwards; then unfasten and stretch again, and so on. In those rings, except the three posterior, are set numerous small sharp points or thorns, projecting backwards, which prevent them from slipping back when moving.

* September 12, 1802, placed a number of eggs (just cast) in a moderate temperature of heat; on the 30th four hatched, and on October 2d two more came out by pressure; others hatched not so soon.

† January, 1802, after severe frosty weather, eggs were taken from a horse and placed in a warm room; some hatched in 5 days, others in 12. Eggs cast in September may not hatch until the spring following.

They penetrate deep into the stomach, forming holes in it, and there hang by their hooks, which are exceeding sharp. If they at any time lose their hold they immediately catch again. Not any part of the stomach is exempted from them; but they are most numerous near the passages into and out of the stomach, where they many times place themselves in great order. They are of all insects the most tenacious of life, at this period; and at this time it is that they prove so destructive to horses. Those horses that die of bots, most commonly die in the months of February, March, or April; however, this depends on the number and growth of the bots, and the injury done to the stomach. How long it is necessary for them to dwell in the stomach is unknown; but in the months of May, June, and July, especially the two latter, they pass the intestines, and immediately seek refuge in the earth, at an uncertain depth, according to the hardness of the soil. At this time they are of a light color. The second day after they go into the earth they become contracted in length, less active, and of a light mahogany color. In one or two days more, stiff, hard, and the color darker:—they are now rather more than half an inch in length, and nearly one-fourth of an inch in diameter, oblong, motionless, and the points and hooks almost obliterated. They do not cast off the skin, (which becomes a shell,) as many other insects do, when they pass into the chrysalis or aurelian state. The wings when formed are folded up, but expand when they arise to new life. In thirty days after they enter the earth, the bee or perfect insect breaks the shell near its smallest end, and comes out a renovated creature; “every thing is changed, all its powers are new, and life to it is another thing.” With certain individuals there is some variation as to the length of the aurelian period: from certain causes it may be protracted beyond the usual period. They in many respects resemble the honey-bee, especially when flying: they are of a lighter color, and have not the tongue necessary to draw honey from flowers. It is probable that they eat not in the perfect state, being doomed only to the continuation of their species. Their legs are six in number. They are not active in the night.—A further description perhaps is not necessary.

General Symptoms of Bots in Horses.

Sometimes horses which are hard worked discover no apparent symptoms until death. In young horses the symptoms are generally better ascertained. In general the horse loses

flesh, coughs, eats but sparingly, bites his sides, and sometimes with violence. These symptoms continue and increase for a longer or shorter time, according to the violence of the case, and then a discharge from the nose commonly takes place; and at length stiffness of the legs and neck, staggering, laborious breathing, convulsions, and death.

Appearances on Dissection.

Bots in abundance collected near the passages into and out of the stomach, and of various sizes, according to the time of their residence there. The texture of the stomach penetrated and greatly injured. The internal coat of the stomach appears thickened and preternaturally hard on those parts where the greatest injury is done. In four out of five dissections the lungs were found greatly inflamed; some parts in a state of suppuration, others in a putrescent state. The one whose lungs were not marked with inflammation, was a young horse of two years old, whose lungs had never been injured by hardships.

Query. Why this inflammation, &c. on the lungs?

The irritation arising by the action of bots in the stomach, may produce a general inflammatory disposition in the system: but as the lungs of horses, by hard usage, are more predisposed to inflammation and its consequences than any other given part of the body, the inflammation fixes there, and in many (if not most) instances seems to be the immediate cause of death.

Experiments to remove Bots from the Stomach.

Aloes, rum, mercury, jalap, brine, linseed oil, pepper, tincture of tobacco, decoction of pink root, &c. are all ineffectual. This will not appear strange when we consider how tenacious they are of life. Nothing is more injurious than rum, and other heating things, to the irritable state of the stomach, whose texture is nearly perforated in numerous places.

Almost every farmer in Massachusetts has some specific, and frequently one of the above named, or those of less consequence. A farmer's horse sickens with a cold, or pain in the stomach from hard travelling perhaps: he asks his neighbor, What is the matter? he answers, The bots. What shall I do? Give him rum. The rum is given, and the horse recovers immediately. Well, what is next? Why, rum has cured the bots. In like manner other things obtain credit for killing bots.

Experiments to make Bots let go their Hold without the Body.

The stomach laid open, the following things were applied to no effect, but in some instances they appeared to hang the stronger—rum, brine, lime, fish oil, British oil, burnt allum, corrosive sublimate, spirits of turpentine, tincture of aloes, decoction of tobacco, pepper, volatile spirit, elixir camphor, weak elixir vitriol, &c. &c. Actual fire would cause them to let go, although not in all cases, sometimes certain individuals would cling the faster and die, like a good soldier at his post, before they would relinquish their hold. They will live hours after they are considerably scorched by a candle. Strong vitriolic acid would immediately cause them to let go their hold. This acid, joined with oil or water, (equal parts) would answer the purpose, though not so effectually as the acid by itself. This acid was found to be more effectual than aqua fortis.

Experiments to destroy Bots without the Body.

The following experiments were made at different times, and on bots three quarters grown, or more.

		H. Min.		
Immersed in	Rum - - - - -	} lived	25	} others not so long.
	Decoction of tobacco - -		11	
	Strong elixir vitriol - -		2 18	
	Volatile spirits - - -		56	
	Spirits of turpentine - -		45	} no effect.
	Essential oil of mint - -		2 5	
	Decoction of pink root - -		10	
	Fish oil - - - - -		49	
	Linseed oil - - - - -		10	
	Solution of nitre - - -		2	
	Elixir proprietatis - - -		10	
	Beef brine - - - - -		10	
	Solution of indigo - - -		10	
	Elixir camphor - - - -		10	

The experiments which had no effect were discontinued at the expiration of the time specified. Bots cannot endure the cold so intense as to freeze.

Preventive Means.

Scrape off the eggs, when laid on the horse, every eight or ten days. A much longer interval will answer the purpose, even once in twenty days; but there is a greater certainty of destroying the whole in short intervals, as some may be overlooked at one time and not at another. This practice must be continued through the season of them, and may be performed with ease with a sharp knife. The eggs should not be scraped off where the horse can feed, as in that case the young bots might be taken in. It is difficult to remove those eggs laid

under the throat with a knife, but they may be destroyed with a hot iron, made for that purpose.

Palliative Means.

From what has been said, it appears exceedingly difficult to remove bots from the stomach: they are covered as with a coat of mail, and seem to be proof against any thing that can be thrown into the stomach with safety.

As no certain method has been found effectual, in removing them from the stomach, the whole indication seems to be to remove irritation and inflammation; and this to be done by blood-letting and a free use of mild oils. Blood-letting has a tendency to remove the inflammatory disposition, and oils lubricate the fibres of the stomach, and tend to obviate the effects of the stimulus which produces inflammation and death. However, all this ought to be done in the early stages, and even then the event is very uncertain.

In most instances it appears that the immediate cause of death was the local affection in the lungs; and in those instances where the local affection of the lungs did not exist, it appears that the irritation occasioned by the bots introduced convulsions ending in death.

When the lungs are much affected death is almost certain; but in those instances where the lungs are not affected, there is considerable probability, that by blood-letting and a free use of oils, the effects of these insects may be warded off for some time, and perhaps long enough for them to come to maturity, at which time they cease to act.

For the MEDICAL AND AGRICULTURAL REGISTER.

*The great Importance of good Orchards—How to have them so—
Illustrated by a Variety of interesting and important Observations.*

DR. ADAMS,

I AM very glad to see that your Register for March contains some "observations on orchards, and directions for planting and pruning fruit trees:" it is a subject of great and lasting importance, not only to the present race of farmers, but to their posterity. He that plants an apple tree, grafts it with a *Roxbury Russet*, or *Greening*, and takes good care of it till the roots have spread so much that it will take care of itself, has provided an inheritance for his son. A single tree has been often known to bear ten or a dozen barrels of sound winter apples. A tree, while it is getting its first ten years' growth, should no more be neglected than a child's education. The

stothful and the careless must go without cider, or go to the neighbors' houses to beg it.

There is no doubt the growth of a tree may be forced too much by manure, especially while it is young: but there is little danger of this when the tree has spread its roots very much. The dung, especially if spread on grass land, will soften the soil, and reach the roots so much cooled by filtering through the sward, that well grown trees will thrive the better for the manure.

Orchards are to be expected to thrive best on good deep loamy soils, which should not be ploughed after the trees are planted out. We see some instances, however, of apple trees on sharp gravelly ridges, that are kept constantly ploughed and planted with potatoes or pease, which, for rapid growth and abundant fruitfulness, exceed those that are planted on richer soils left in grass sward.

The third year after planting out the trees is soon enough to graft them: till they become flourishing it is best to let them alone. No fruit is more profitable, or makes a richer cider, than the *Roxbury Russetin*: but it is in vain to expect this sort of fruit to flourish in barren neglected land. The *Greening*, and many other good sorts of apples, are less dainty. In pastures where apple trees are scattered about, it is recommended to graft them with sweet apples, which will less injure the cows than such as are sour; and large sweetings will not be so likely to choak them as smaller apples.

The clay mortar, thoroughly well mixed with cattle's hair, is excellent for grafting. No strings, rags, or tow are necessary; this greatly saves time in grafting: and the hair prevents the mortar from soon peeling off.

When cattle or horses are allowed to rub their itching necks against the green stems of young trees, the bark will look greasy: this is believed to be injurious to the trees, and should be prevented by stakes, so placed that the wind will not gall the bark against the stakes, or by tying thorn bushes to the trees, or by keeping the cattle in the orchard only to bait, and that no longer than hunger will keep them busy in eating.

Cider is probably the wholesomest of all drinks for hard laboring people; and it is supplied from a small but flourishing orchard, cheaper than strong beer, the drink of English husbandmen. It is so much the more to be recommended, as rum is making such inroads on the gains, the morals, and constitutions of farmers. This very spring then, let every prudent husbandman be stirred up to take the best care of his *old* orchard, or to plant a *new one*.

MISCELLANEOUS ARTICLES.

ARTICLE XIII.

Result of Meteorological and other Observations, for March, 1806; made at DEERFIELD, (Mass.) by Mr. EPAPHRAS HOYT; at PORTSMOUTH, MASON, NEWBURYPORT, CONCORD, and BOSTON, as in the preceding Numbers:—For the Medical and Agricultural Register.

March, 1806.	Mean degs. at Sun-rise.	Mean degs. at 2 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Burials.	Deaths.
Deerfield *				31st day 73°					2
Portsmouth	26½	37½	30½	31	62	1st day 12°	N. W.		
Mason	27½	37½	32½	31	61	9 11	N. W.		2
Newburyport	24½	36¼	30½	31	64	1 11	N. W.		
Concord	25½	36	30½	31	65	1 9	N. W.	2 5	3
Boston	26½	38½	32½	31	66	1 16	N. W.		

WEATHER.†

1st day, clear and cold	13 } cloudy, some snow,	23— cloudy, fair
2— cloudy, fair	14 } and a little rain	24— snow, storm violent
3— fair	15— overcast, fair	in Portsmouth, 3 inc.
4— snow, very still	16, 17, 18, 19— fair and	Concord, 2½ inches
Mason, 3 inches	cold	25— clear and cold
Con. sea ports, 1½		26— snow, cold
5— cloudy, spitting of	20— cloudy, sn. at night	Deerfield, 3 inches
snow	Deerfield, 1½ inches	Newburyport, 2 inc.
6— cloudy, fair	Mason, 4 inches	Concord, 2 inches
7— cloudy, light snow	Newburyport, 2 inc.	27— fair, high winds
Concord, 1½ inches	21— rainy morn. some	Boston, good sleighing
8, 9, 10, 11— clear and	places snow, fair A.M.	in the forenoon
cold	Portsmouth, storm vi-	28, 29— fair
	olent	
12— cloudy, little snow	Concord, snow 1½ inc.	31— fair and pleasant
Concord, 1½ inches	22— fair, flying clouds	

Newburyport.—There was some appearance of the aurora borealis (when not prevented by clouds) almost every evening in the two first weeks of this month. Blackbirds and robins began to make their appearance about the 22d of February. There has been no epidemical nor prevailing disease this month. There have been 24 deaths in the months of January, February, and March.

* The observations at this place commenced with the 7th day of the month, therefore the result is incomplete.

† Where no particular place is mentioned, the observation against each day is to be understood as applying to all the different places where these observations are taken.

Deerfield.—The degrees of heat are taken with a mercurial thermometer, (Fahrenheit's scale,) hung in the shade.

Of the state of health, &c.—There has been no uncommon sickness: I have noticed a few cases of ophthalmia. In some of the neighboring towns there have been a few deaths from phrenitis.—Of the deaths inserted in the *column of deaths*, one was a person whose constitution was worn down by a chronic disorder, which I cannot name: the other was a child, whose disorder was in the bowels; on opening the abdomen, a singular kind of knot was found in the intestines, which was drawn so tight that the passage through the intestines was entirely obstructed; this soon produced a mortification, which occasioned the death of the child.

Of storms, &c.—None remarkable. Very little snow has fallen this month; I believe the quantity did not exceed five inches. No rain has fallen. The ground has been bare most of the month; but vegetation lies dormant, except on the south side of the hills on the margin of our meadow, where nettles and dandelions have come forward, (April 3.) The greatest degree of cold observed in this town the winter past, was the 18th of January; on this day, at sun-rise, the mercury was 23° below zero.

EP. HOYT.

ARTICLE XIV.

Extracts from various Authors.

Seed. Let your seed be such as you would wish to have your future crop—the best of the kind. As the largest animals produce the most profitable stock, so it is in vegetables: the largest seed of the kind, plump and sound, is the best, being well ripened, and kept from injuries of weather and insects.

Commonly speaking, *new* seed is to be preferred to old, as growing more luxuriantly, and coming up the surer and quicker. As to the *age* of seeds, at which they may be sown and germinate, it is uncertain, and depends much *how* they are preserved.

Seeds of cucumbers, melons, gourds, &c. which have thick horny coverings, and the oil of the seed of a cold nature, will continue good for ten, fifteen, or even twenty years, unless they are kept in a very warm place, which will exhaust the vegetable nutriment in a twelve month; [*three* years for cucumbers, and *four* for melons, is generally thought to be best, as they shoot less vigorously than newer seeds, and become more fruitful.]

Oily seeds whose coats, though they are not so hard and close as the former, yet abounding with oil of a warmer nature, will continue good three or four years, as radish, turnip, rape, mustard, &c.

Seeds of umbelliferous plants, which are for the most part of a warm nature, lose their growing faculty in one, or at most two years, as parsley, carrots, parsnips, &c.

Peas and *beans* of two years old are by some preferred to new, as not likely to run to straw.

Sowings should be generally performed on *fresh* dug or stirred ground. There is a *nutritious* moisture in fresh turned up soil, that softens the seed to swell and germinate quickly, and nourishes it with proper aliment to proceed in its growth with vigor, but which is evaporated soon after from the surface.

Evelyn says, seeds for the garden cannot be sown too shallow, so they are preserved from birds, for nature never covers them.

Steeps are used to render the seed more fruitful, as preservations against distempers, and to prevent worms from eating it.

[There are many well attested facts to prove the utility of steeping seed for sowing. In some dry seasons, especially the steeping of the seed or not steeping of it, makes the difference of a *good crop* or *no crop at all*. Steeps may be chamber lie, the draining of a dung hill, or a weak solution of salt in water. In either of these the seed should be soaked eight or ten hours: when taken out, sprinkle over it a quantity of newly slacked lime, or plaster of Paris, or even ashes, stirring the seed until every grain is covered. This operation is done immediately before sowing.]

Tull relates that a ship load of wheat was sunk near Bristol in autumn, and afterwards, at ebbs, all taken up, after it had been soaked in sea water; but being unfit for the miller, the whole cargo was bought up by the farmers, and sown in different places. At the following harvest all the wheat in England happened to be smutty, except the produce of this brined seed, and that was all clear from smuttiness. This accident has justified the practice of brining ever since, in most parts of England.

To prevent Crows pulling up Corn. Take so much corn as is intended to be planted the next day, and put it into warm water at night; in the morning drain off the water, and add more warm water, just enough to cover the corn; then stir in tar, in proportion of *one pint to a bushel* of corn; after which, drain off the water, and add ashes, slacked lime, or plaster of

Paris, enough to prevent the corn from sticking. It is said, that corn thus prepared crows will never meddle with : it is also effectual against *blackbirds*. It is necessary the corn be well soaked before it receives the coating of tar, as that does in some degree exclude the moisture from the kernel ; and without this precaution it might linger in coming up.

N O T E S.

To Readers and Correspondents.

BY the attention of our correspondents, we have been enabled to fill this number of the Register almost wholly with *original* matter. We will not here take up room, to express how much we are obliged by these favors : a consideration, however, of greater importance than simply that of *obliging us*, ought to come into the account ; it is that of *doing a great public benefit* ; and when all other considerations shall prove insufficient, this alone,

it is believed, will be effectual. People are disposed to *read*, if gentlemen of observation and practice in medicine and agriculture will *communicate* ; and we believe gentlemen generally *will be disposed to communicate*, so soon as they shall see and know that people *are disposed to read*. We have, therefore, the fondest expectations that our hopes, and the wishes of the public, in this publication, shall eventually be gratified.

Hydrophobia.

MUCH alarm has been excited at *Leominster*, (Mass.) of late, from apprehensions of this most terrible disease. *Nine persons*, and a number of animals, have been bitten by dogs of very suspicious appearances. It is now more than six weeks since this happened. The dogs (two in number) were killed immediately. One of these dogs, in the absence of his master, rose up against the family : in attempting to rescue one, another was bitten ; and thus the conflict continued till the whole family were bitten, and the dog driven out of doors. The other dog proceeded from Lancaster, through a section of the

town, entering into houses, and what was most singular, in a number of instances running to the fire, clawing out the coals and champing them with his teeth. Children attempting to make play with the dog were generally bitten, and one or two other persons. The dog was last seen in a cow yard, setting furiously upon the sheep, some of which were bitten, and where he was killed. However, as no person, nor any animal bitten, has yet been affected with the disease, it is presumable, notwithstanding appearances, that the dogs *did not carry the virus* in their bite.

N. B. The extract from Dr. ARMSTRONG, promised in this number, is omitted for want of room.

CONDITIONS OF THE REGISTER.

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THE

Medical and Agricultural Register.

VOL. I.]

MAY, 1806.

[No. 5.

M E D I C A L.

The History of a singular and very mortal Disease, which lately made its Appearance in Medfield—Symptoms of the Disorder—Its Progress and Termination—Appearances on Dissection—The different Methods of Treatment, and what eventually proved successful: communicated by Doctors L. DANIELSON and E. MANN, attendant Physicians on the Sick.

DR. ADAMS,

IN conformity to the demand which society has on the united exertions of all, to ameliorate the condition and alleviate the distresses of humanity, the undersigned think proper to submit the following history of facts, relating to the disease which lately made its appearance in Medfield, with the *methodus medendi* [method of treatment] proceeded on in each case; giving in detail the consequences which followed, and leaving it with the speculative inquirer to draw his own conclusions relative to the nature and origin of the disorder. The similarity of symptoms in nine cases which proved fatal, all between the 8th and 31st of March, has been so great, as to render a particular detail of each unnecessary; we shall, therefore, give only a concise history of the mode of attack, and progress of the symptoms, generally.

Without any apparent predisposition, the patient is suddenly taken with violent pain in the head and stomach, succeeded by cold chills, and followed by nausea and puking; matter discharged from the stomach of no unusual or morbid appearance; respiration short and laborious, tongue a little white toward the root, and moist; velocity of the blood increased,

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with a very sensible diminution of momentum in the radical, while in the carotid arteries it was much augmented; and in a child of 15 months old, a very violent pulsation was discovered, at the fontanel [opening of the head;] the eyes have a wild vacant stare, without much if any appearance of inflammation; the heat of the skin soon becomes much increased, yet the skin is not remarkably dry: these symptoms are accompanied by a peculiar fearfulness, as if in danger of falling from the bed or nurse's arms, and continue from six to nine hours, when coma [suppression of sense and voluntary motion] commences, with increasing debility; extremities become cold; livid spots, resembling petechiæ [purple spots which appear in the last stages of certain fevers,] appear under the skin, on the face, neck, and extremities; pulse small, irregular, and unequal; spasms occur at intervals, which increase in violence and frequency in proportion as the force of the circulation decreases; at this time the eyes appear glassy, and the size of the pupil varies suddenly, from almost wholly obliterating the iris, down to the size of a millet seed, and then again as suddenly dilating. These symptoms seem to mark the second period of the disease, and continue from three to five hours. The third and last stage is distinguished by a total loss of pulsation at the wrists; livid appearances become more general; spasms more violent; coma more profound; death! The patient has in general continued in the last stage from six to twelve hours.

In the treatment, different methods were used. At first it was thought advisable to evacuate the stomach and bowels, and to exhibit bark and wine as speedily and freely as possible. This mode was followed in the three first cases that received medical advice,* in all which it was found ineffectual: the patients seemed invariably to sink faster after each evacuation, and the stimulating powers of the bark and wine were found to be either too feeble or too slow in action to produce any good effect.

Case 5.—In this case the attack was more gradual, and the symptoms more mild, than ~~any~~ which preceded or followed it. Convinced not only of the inefficacy but of the absolute injury of evacuations, in those cases which had gone before, it was determined to lose no time in exhibiting evacuants, but to commence the stimulating process immediately: accordingly the child (aged 3 years) was directed to get cal. 3 grs. gum opii. $\frac{1}{2}$ gr. mixed, once every three hours; bark and wine in as large quantities as the stomach would bear. This method

* The first subject was in the pangs of death when first seen.

was followed for several days, until she had taken an hundred grains of calomel. Notwithstanding the liberality with which the medicine was introduced, the mouth was not affected, nor any purging produced. The extremities were blistered largely; and the child was frequently immersed in a warm decoction of white oak bark, for ten or fifteen minutes. The length of time which this child continued gave us some hope of recovery, as her life was prolonged eleven days from the attack, when she failed in the same manner as the others had done. Whether it was owing to the mildness of the attack, the peculiarity of constitution, or the herculean treatment employed in this case, which prolonged her existence, we cannot determine; this however is certain, that the 6th case, a child of two years old, of a robust and healthy constitution, failed in twenty-six hours, under the same mode of treatment.

In the 7th case, affusion of cold water was added to the above treatment, with a like want of success, as the child lived only twenty-seven hours from the accession of the disease. In the two following it was thought advisable to assist the natural efforts to puke with an infusion of camomile flowers, and to discharge the contents of the rectum by a clyster; after which turp. min. æth. ammon. musk, blistering the whole head, embrocating the extremities with spt. terebinth. spt. fal am. tinc. canthar. mixed, were tried, and found alike unavailing.

In the last case, a child of 15 months old, on account of the *very violent pulsation* discovered at the fontanel, about an ounce of blood was taken from the jugular vein; the effect was unfortunate; the child seemed to fail faster, even from this small depletion, and died within twelve hours from the attack.

This last mentioned case closed the fatal scene, yet did not lessen our fears, and gave strength to the alarm which had fastened on all, and which had gained such complete ascendancy over every prospect of success, that it would be impossible to describe the impressions made on the minds of tender parents and affectionate friends for the safety of their children and connexions.

Two days after this last fatal case, we were called to visit a female child aged 3 years and 4 months, which case was so distinctly marked that scarcely a ray of hope existed that the issue would be favorable; and all who had witnessed the effects of this terrific malady, viewed this child as it were in the article of death, her symptoms being almost as violent as any, and more so than some of the preceding cases. As the means which we had hitherto used had uniformly failed us, we thought

ourselves justified in leaving them, and trusting wholly to *Fowler's mineral solution* * and wine; accordingly the child got, in about three-fourths of an hour after the commencement of the disease, *two drops* of the solution in a table spoon-full of wine, and in half an hour she ceased complaining of pain, became more lively, and in fact the only remaining symptoms of disease were a very small, quick, and irregular pulse, accompanied with a dull, heavy appearance of the eyes. After the exhibition of the medicine, she was directed to get one drop every two hours, and to take wine freely. This course was continued for eighteen hours succeeding the attack, during which time the child seemed free from pain, and got a tolerable night's rest. The second day—child evidently better, and had some appetite; pulse still remarkably small, and had been, after a small evacuation from the bowels, quite imperceptible at the wrist; eyes still dull; same medicine, gradually diminishing in quantity, was continued for five days, at which time, and not before, had the pulse regained a healthy standard, the eyes their usual vivacity, and the patient was considered out of danger, if not perfectly well. Since this we have had three or four other cases, in all of which we have placed our whole reliance on the *solution*, and are happy to have it in our power to say, that, from a similar exhibition of this *heroic medicine*, all our patients have recovered.

Examination by dissection was had on five bodies of patients dying of the above described malady.

The first examination was made on a boy ten years old, seven hours after death, whose case was strongly marked, terminating in twenty-two hours. On removing the cranium, and dividing the dura mater, there was discharged, by estimation, half an ounce of a ferus fluid. The dura and pia mater in several places adhered together, and both to the substance of the brain. The veins of the brain were uncommonly turgid with a fluid similar to that which was discharged from between its membranes, and the substance of the brain itself remarkably soft, offering scarcely any resistance to the finger when thrust into it: the cerebellum also was found in the same state. The stomach contained about six ounces of a dark fluid resembling coffee grounds, and its villous coat was nearly in a state of dissolution. The lungs were rather darker than usual; otherwise all the viscera [bowels, &c.] both of the thorax and abdomen, were in a healthy state.

The second examination was made twelve hours after death, on the body of a girl of five years old, of the same family, and

* A medicine well known to physicians, and one of the most active in the *materia medica*.

sick at the same time, and whose case was also strongly marked. Between the dura and pia mater was effused a fluid resembling pus, both over the cerebrum and cerebellum, the veins of the brain turgid with blood, and the hemispheres adhered together with considerable strength. These were the only morbid appearances within the cranium. The appearance of the stomach differed in nothing from that of the preceding case, only that the villous coat was not so tender. The abdominal and thoracic viscera were apparently healthy.

In the three other cases that were examined, nothing peculiarly morbid was discovered in any part of the system, excepting the veins and sinuses of the brain were found remarkably turgid with a very dark colored blood.

L. DANIELSON.

E. MANN.

Medfield, May, 1806.

For the MEDICAL AND AGRICULTURAL REGISTER.

Medical Extracts, No. I.

Quack and Patent Medicines.—THE credulity of mankind in respect of medicine is truly astonishing; even those who are doubtful in other matters are very easy dupes of every pretender to a secret medicine. Many will neglect good advice, and run after an ignorant person who has a secret medicine. There is a greater difference between a good physician and a self-created one, who without knowledge undertakes every thing, than a good physician and none. He who advertises a secret or patent medicine is aiming for the money of the credulous and ignorant, and when he has obtained it cares no more for them. Many worthless drugs are brought into use by the breath of imposture and the voice of credulity; or perhaps they may be taken just before a favorable crisis, and so establish their unmerited fame; for the drug not having killed the patient, (but only retarded the cure,) he knows from experience that the medicine has cured him, and so publishes it in the news-papers.

After people are convinced from their own experience of the futility of any quack or patent medicine, they give themselves no further trouble about it, but leave it to their neighbors to make the same inquiry, if they please: this is what the quack wishes, as he gains by the experiment; and when his fortune is made, he cares no more about the reputation of his drug; but if its character should be blasted before he has accomplished his object, he then metamorphoses his infallible

bitters into *infallible pills*, *itch ointment*, or some thing else, (no matter what, to get money,) and sounds their praises in the news-papers; and probably the ointment will finish what the *bitters* began. The credulous read with pathos the pompous advertisements of unprincipled quacks—"This medicine is a powerful one; it will cure all kinds of diseases incident to man; it may be taken at all times, in all seasons, in all climates, and by all persons of all descriptions, male or female, young or old, black or white; if the disease has arrived before it is taken it removes it, and if the disease is only on the road it prevents its arrival; it will cure the consumption, dropsy, and cancer, those dreadful diseases, which baffle the skill of the faculty; it is so wonderful in its operation that no person ought to be without it." By such means money is taken from the pocket of the credulous. In fact, a patent medicine is an impudent burlesque on common sense, and the absurd idea that there is such a thing as an universal medicine can only obtain credit with the weak and credulous. The existence of an universal remedy for the cure of all diseases is impossible, for there cannot be a remedy which will restore tone to the fibres when they are relaxed, and also have the power of relaxing them when they are too rigid.

It is a melancholy truth, that many patent and other quack medicines acquire their ill-merited reputation by chance, and we are unable to come at the evidence of perhaps nine-tenths of those who have experienced their *fatal* effects, and who are now no longer in a situation to complain. The baneful effects of such medicines are not generally known, for it is only the *extraordinary instances of relief* that are made public. There are various causes from which the same diseases originate in different individuals; for instance, violent cholic pains may arise from flatulency, from inflammation of the intestines, from rupture, from poisonous matters, &c. : these all require a different treatment; what would cure one might destroy the other. The ablest physician is obliged to employ all his sagacity, supported by experience, and even then is often under the necessity of discovering from the progress of the disease what he could not discover otherwise by the minutest researches. If this is the case, how can it be expected that a quack, (male or female,) who knows nothing of the structure of the human body, or the laws by which it is governed, should be more successful, when the method of cure is either the impulse of the moment or the effect of credulity.

Nature.—The work of nature, both in the production and dissolution of matter, is carried on in the strictest economy; nothing is produced in vain, and nothing consumed without a

cause: the destruction of forms and figures is a careful decomposition in order to produce new substances. All nature is united by indissoluble ties: every thing exists for the sake of another, and no one can exist without its neighbor; or in other words, all nature consists in a circular chain of links, and it is difficult to tell where the first link begins. Nature is our surest guide, she teaches the rule of just economy. Man is but a part of the whole of her great system, and should cultivate an acquaintance with her laws, and his own constitution, and ought to choose or reject according to the dictates of reason, ever observing nature's example, and expend neither too much nor too little of her treasures. Men seldom go far wrong while they follow nature, but every deviation from her laws (in respect to health) is attended with danger. If man could keep at a medium he would be perfect: he flies from one extreme to another, and is equally wrong in both. Young men are apt to be prodigal of nature's treasures, and where their morals are neglected generally dash into every vice, and by these means their lives are greatly shortened. Many are indebted to their parents and friends for their diseases, occasioned by errors with regard to the quality and quantity of aliment: they did not observe nature, but their own impulse. Mankind, especially in populous towns, have degenerated in strength, energy of mind, and in capacity of resisting the noxious agency of powers which affect them from without. The progressive cultivation of the mind, with the refinements of habits and manners, are ever accompanied with a proportionate increase of luxury. Nature is contented with little, but luxury knows no bounds. In proportion as the refinements of luxury increase in a nation, the number and variety of diseases also increase, and the more plain and simple a people continue, (especially in diet and regimen,) the more they approximate to a state of nature, and are less affected by the causes of disease. Every change of custom in civilized nations produces a change in diseases, and of course calls for a change of remedies. Intemperance, indolence, idleness, sleeping in small apartments, uncleanness, stagnated foul air, damp clothing, transitions from hot to cold air, anger, &c. tend to disease. Temperance, moderate exercise, plain wholesome food, cleanliness, pure air, early rising in the morning, cheerfulness of mind, &c. tend to health, and to its preservation. Temperance and exercise are two excellent physicians. Intemperance disorders the whole animal economy. - The slave to appetite will ever be the disgrace of human nature. The epicure and the drunkard seldom stop in their career until their money or constitution fails. Nature delights in plain, simple food; and

every animal follows her dictates except man, who riots at large, and ransacks the whole creation in quest of luxuries, to his own destruction.

Cleanliness.—Nothing more contributes to health and its preservation than cleanliness of person and apparel. Cleanliness is an important virtue, and much disease may be avoided by attending strictly to ablution. The perfection of dress is ease and cleanliness: the want of due attention to cleanliness is the occasion of a variety of diseases, as the itch, &c. &c. If uncleanness does not give origin to pestilential fevers, it certainly helps to extend, circulate, and continue them, when once excited. The effluvia of dirty cottages and dirty rooms are of like nature with pestilential vapors. Penury is generally associated with nastiness, and often with indolence: it often happens that pestilential diseases commence with the poorer class of citizens, who are negligent of cleanliness; and on the first visitation of the physician, are found in a small nasty bed-room, enveloped in dirty linen, &c. little less pleasant than a lump of putrefaction.

In order to health houses must be kept clean, and no offensive matter should ever be suffered to remain. Farmers should remove every kind of manure from their houses, for by neglecting so to do they may be led to the dubious routine of physic, by their families being sickly in consequence of nastiness. One blunder leads to another: the want of crops, (by neglecting his manure,) and hence failure in his income, drives him to mortgages, judgments, and executions. In fact, the foul habitations of many people are nurseries of pestilential diseases. Truly uncleanness is so disagreeable in its nature, that it is strange any should be contented to harmonize with it: but there is a law in the animal economy, which accommodates the mind of man to all the natural evils to which he, in the common order of things, is exposed.

The body ought to be kept perfectly clean, by frequent changing the linen, and by frequent washings; by these means much filth and perspirable matter, which adheres to the skin, will be removed: the whole system is refreshed and invigorated by this practice. These washings may be by immersion of the whole body in warm water, or with a single bowl of water, rubbing the body with a sponge a few minutes. On the whole, whoever would live to old age must keep himself clean, must avoid anger and excessive fatigue, and must be good humored, cheerful, industrious, and contemplate new objects.

May, 1806.

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AGRICULTURAL.

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*Observations on the raising of Potatoes ; communicated in a Letter,  
by Lieut. BEZALEEL LAWRENCE.*

DR. ADAMS,

SHOULD you think the following method of raising potatoes would be more useful than those now generally used, and that it will tend to subserve the interests of agriculture, you are at liberty to publish it.

The value of potatoes was but little understood by our ancestors. My grandfather, since my remembrance, observed that he raised, in one year, six bushels of potatoes, but found so little use for them during the fall and winter, that he threw away one half of them in the spring. They are now, however, so highly esteemed, that it is not uncommon for a farmer to raise from two to three hundred bushels in a year. To ascertain, therefore, the best method of raising them, as it respects both the quantity and quality, will not, it is presumed, be thought unimportant.

The method by which I was taught to raise them, and which I believe is now generally practised, was, to plough the ground very deep, make deep furrows, clear out those furrows with a hoe, so as to receive a large shovel full of manure ; then to plant them upon the manure, and cover them very deep with earth. After they had come up, I was taught to plough deep between the rows, and hoe the earth round them, so as to make large and high hills.

From the following facts and observations I am fully convinced the above method is wrong :—

About ten years past, I ploughed a piece of wetish land, covered with small bushes, for the purpose of subduing them. Owing to the roots of the bushes I was unable to plough deep, or make deep furrows. The manure was put on the top of the furrows, the potatoes placed upon that, and earth carted to cover them, whereby they were but thinly covered with earth. After they had come up, they were hoed three times before they blossomed, the earth each time loosened from the roots, and replaced by a little fresh earth, but not so as to make the hills deep or large. In the fall, after the frost had bitten the tops, but not killed the roots, they were pulled with ease, not being deep in the ground, and took between the

rows, where they remained in the sun two or three hours: they were then carried into the cellar, and, not expecting them to be so good as some I had raised in the common way, intended only for the use of the cattle: but the family, not knowing this circumstance, used them a number of times to eat, and finding them remarkably sweet, mealy, and palatable, led me to an inquiry into the cause: being unable to account for this in any other way than their not having been planted and covered deep in the earth, I was determined the next year to try the experiment, which I did in the following manner.

A part of my potatoes were planted as usual, and a part were planted near the top of the ground, covered but thinly, and afterwards hoed so as not to make large or high hills. In the fall, those potatoes planted and cultivated in the manner last mentioned, were far more sweet and palatable than the others.

Since that time I have planted and cultivated my potatoes by the following rules:—

1. Plough the ground but a few days before the potatoes are planted, because otherwise it will settle and become hard.

2. Furrow the ground four feet apart each way, and that only, where the land is moist, for the purpose of making a mark where to place the manure for each hill.

3. If the land be moist, the manure should be of a light or strawy kind; if dry, it should be finer, or of a moister nature, and the furrows a little deeper.

4. After the manure is placed, drop the potatoes on it, covering them thinly, and taking care that no rocks or sods be placed on them, but to place them near the potatoes, for the purpose of letting in the air.

5. Soon after the sprouts shoot through the ground, plough between the rows with a horse, as near the roots as possible, clear out all the weeds from the potatoes, and add a small quantity of fresh earth to the roots.

6. At the second ploughing, plough the other way of the rows from the first, and in all other respects proceed as before.

7. At the third ploughing, (which should be before they blossom, otherwise there will be a new set of sprangles, which will cause the growth of a large number of small potatoes,) proceed as before, clearing out the weeds, and placing a little fresh earth round the roots, making the hill flattish, but not high; in this way small showers, and even a common dew, will afford nourishment, and increase their growth, and as it keeps the earth light and clear of weeds, the air and the rays of the sun will easily penetrate to the roots, and render them more sweet and mealy.

8. In the fall, before the roots are dead, they should be dug, shook between the rows, and remain two or three hours in the sun, (for potatoes should be dug in fair weather,) then carried into the cellar, where, to prevent their becoming strong and bitter, they should be kept as much from the air and moisture as possible.

Should the above facts and observations prove useful to farmers, in the cultivation of a root so highly and generally esteemed, and so truly valuable, as the potatoe, the communication of it to the public, through the medium of the Register, will afford me much satisfaction. The experiment is easy, and may be tried without risk.

BEZALEEL LAWRENCE.

Leominster, April 21, 1806.

For the MEDICAL AND AGRICULTURAL REGISTER.

*On Pruning Fruit Trees.*

DR. ADAMS,

It is with much pleasure I have noticed in the Register a number of valuable communications on planting and cultivating fruit trees. So far as it respects *the fittest season for pruning*, however, I must take the liberty to differ from your correspondent on that subject, in your third number.

The great object in the choice of a time for that purpose is, *to hit upon one when the tree will not waste its sap, and when the wound will heal over the quickest*; in order to affect this, let the business be done in *June*, about two or three days before the change of the moon; at that season the stock where the limb is taken off will not emit any more sap than a dry stick; but the work should be done by a careful hand, *that the bark may not be started round the wound*. Perhaps it would be best, if the limbs be large, to take them off first a few inches from their insertion into the stock, then *let the remainder be taken off close*, with a sharp fine saw: when this is done, nature will immediately begin her operation to effect a cure; for in *four days* it will be found that a ring or callus of new growth is forming round the wound, which will grow and heal over sooner than if the same limb had been taken off *fifteen months* before.

If any one should smile at the idea of the moon's having any influence in the business, I would observe, that the moon does certainly affect the sap of the tree as well as the tide of the ocean; country people, who are in the practice of peeling bark from forest trees, are well persuaded of this. As every

discovery in the management of trees is of some importance, it is hoped that the truth of the foregoing observations will be tested by experiment.

A NORFOLK SUBSCRIBER.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

THE following mode of curing butter I believe was practised first in the parish of Udney, in Great Britain. An account of it has some time since been published in this country; it is, however, yet far from being generally known, and many to whom it is known have not paid it that attention which the importance of the thing requires; I have therefore a wish it may appear in the Register.

Take two parts of the best common salt, one part of sugar, and one part of saltpetre, beat them up together, and blend the whole completely: take one ounce of this composition for every sixteen ounces of butter, work it well into the mass, and close it up for use.

The above by some is used in this proportion—*ten ounces of salt to four ounces of saltpetre and four ounces of clean sugar.*

The following is the commendation given of this mode of practice in the *Pennsylvania Farmer* :—

“The butter cured of this mixture appears of a rich marrowy consistence and fine color, and never acquires hardness nor tastes salt; *it eats as sweet after being kept three years as at first.* It must be noted, that butter thus cured requires to stand three weeks or a month before it is fit to be used; if it be sooner opened the salts are not perfectly blended with it, and sometimes the coolness of the nitre will then be perceived, which totally disappears afterwards.”

This mixture will not cost more than about *one cent* by the ounce, which is sufficient for curing *one pound of butter.* Country farmers, is not this worthy your attention? As much so as *sweet butter* is better and bears a higher price than that which is *strong and frowy.* Besides, it affords to the dairy-woman a *settled rule*, in an operation which, in the way it is usually practised, is done *without rule or uniformity.* I cannot but think, were people to adopt the mode here recommended, they would soon be convinced of the importance of it. Every one knows the superiority of meat preserved by a proportion of saltpetre and sugar with common salt, and it cannot but be expected that the same should be the case in respect to butter.

A LOVER OF GOOD BUTTER.

Suffolk County, May, 1806.

*Cautions and Directions in Gardening, extracted from "MARSHALL'S Gardening."*

**Gardening.**—THE management of a garden (summarily speaking) consists in *attention and application*; the first should be of that wary and provident kind, as not only to do well in the present, but for the future; and the latter should be of that diligent nature as (willingly) "*never to defer that till to-morrow which may be done to-day.*" Procrastination is of serious consequence to gardening; and neglect of times and seasons will be fruitful of disappointment and complaint. It will often happen, indeed, that a gardener cannot do what he *would*; but if he does not do what he *can*, he will be most justly blamed, and perhaps censured by none more than by himself.

**Weeding.**—Weeding in time is a material thing in culture, and *firring* the ground about plants, as also *earthing up* where necessary, must be attended to. Breaking the surface will keep the soil in health; for when it lies in a hard or bound state, enriching showers run off, and the salubrious air cannot enter. Weeds exhaust the strength of the ground, and if they are suffered to seed and sow themselves, may be truly called (as Mr. EVELYN speaks) *garden sins*. The *hand and hoe* are the instruments for the purpose. *Digging* where the spade can go, between the rows of plants, is a good method of destroying weeds; and as it cuts off the straggling fibres of roots, they strike fresh in numerous new shoots, and are thus strengthened. Deep *hoeing* is a good practice, as it gives a degree of fertility to the earth.

## MISCELLANEOUS ARTICLES.

### ARTICLE XV.

*Result of Meteorological and other Observations, for April, 1806; made at DEERFIELD, PORTSMOUTH, CONCORD, and BOSTON:—For the Medical and Agricultural Register.*

| April, 1806. | Mean degs.<br>at sun-rise. | Mean degs.<br>at 9 P. M. | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births. | Deaths. |
|--------------|----------------------------|--------------------------|------------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|---------|
| Deerfield    | 84                         | 50½                      | 43½                          | 21st day 72°                   | 11th day 19°                | N. W.                |            |         |         |
| Portsmouth   | 86½                        | 47                       | 41½                          | 66                             | 11 22                       | N. W.                |            |         |         |
| Concord      | 38½                        | 47½                      | 43                           | 67                             | 3 22                        | N. W. & W. N. W.     | 4          | 7       | 1       |
| Boston       | 37                         | 49                       | 48                           | 70                             | 11 24                       | N. W.                |            |         |         |

## WEATHER.

- |                                                                         |                                                                   |
|-------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1 <sup>st</sup> day, cloudy, fair.                                      | ning to plough; <i>Portsm.</i> heavy thunder and sharp lightning. |
| 2 } fair, very dry for the season; 4th                                  | 17— cleared off cool.                                             |
| 3 } and 5th warm, frogs peeped;                                         | 18 } alternate clouds and sunshine, un-                           |
| 4 } 6th the wind shifted into the                                       | 19 } settled weather.                                             |
| 5 } N. E. and blew raw and cold.                                        | 20— moderate weather, wind S. W.                                  |
| 6 } commenced a N. E. storm of                                          | 21— cloudy; <i>Deerfield</i> little rain P.M.                     |
| 7— rain.                                                                | 22— moderate rain and cool.                                       |
| 8— cleared off cold; <i>Concord</i> and                                 | 23— cloudy, fair.                                                 |
| 9— <i>Portsmouth</i> a little snow.                                     | 24 } fair, cool and windy, frosty morn-                           |
| 10 } fair and cold, brisk winds, some                                   | 25 } ings.                                                        |
| 11 } squalls; 12th the ice at <i>Town-</i>                              | 26 } cloudy and rain.                                             |
| 12 } send,* by actual measurement,                                      | 27 } cloudy; <i>Deerfield</i> fair; some                          |
| 13 } on streams of running water,                                       | 28 } small showers 29th.                                          |
| 14 } two and an half inches thick.                                      | 30— fair and windy.                                               |
| 15— weather moderated.                                                  |                                                                   |
| 16— warm, no frost last night, rain; <i>Townsend</i> some people begin- |                                                                   |

*Deerfield, May 1, 1806.*

*Of the progress of vegetation.*—This is very small. The elm, willow, maple, and lilack begin to wear the appearance of verdure, but the apple tree has the sterile aspect of January. The weather during the month has been uncommonly cold and dry, and the season is very backward.

*State of health.*—Violent colds are frequent, otherwise it may be said to be as healthy as usual.

We have had no long continued nor severe storms this month, (April.) The 11th was a stormy, windy day, particularly in the afternoon; we had a little snow in the morning. The 26th was rainy and snowy; the tops of the mountains appeared white, but very little snow fell in the vallies.

EP. HOYT,

*Extracts from public Prints.*

NORFOLK, (*Virg.*) May 5.—We believe the oldest inhabitant does not remember so long a drought; the consequence of which, it is feared, will be ruinous to the agriculture, which is now injured for want of rain. The great *Dismal Swamp*, so called, has been some weeks on fire, which has extended for many miles. We have conversed with some gentlemen of information from that quarter, who assure us that the damage already done is moderately estimated at one hundred thousand dollars. A number of buildings, bridges, and a large quantity of timber, are consumed; and the fire yesterday was raging in every direction with the greatest violence; without rain there is no hope of its stopping short of the entire destruction of all the timber in this great tract of country. The rapidity with which our informants state the flames to spread, exceeds any thing that can be described.

\* In Middlesex county, 43 miles N. W. from Boston.

*Extract of a Letter from a Gentleman at Vincennes, dated March 28, 1806.*

"A strange and very singular disease \* is said to prevail in the Illinois counties: it seizes only girls of twelve years of age or under, beginning with head-ache and fever, and generally terminating in death on the third day. A gentleman of Prairie du Rocker is said to have lost all his daughters. I have not heard further particulars."

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## POETRY.

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### *Water the most salutary Liquor.*

LEARN temp'rance, friends! and hear without disdain  
The choice of water. Thus the Coan sage †  
Opin'd, and thus the learn'd of ev'ry school:  
What least of foreign principles partakes  
Is best; the lightest then; what bears the touch  
Of fire the least, and soonest mounts in air;  
The most insipid, the most void of smell.  
Such the rude mountain from his horrid sides  
Pours down; such waters in the sandy vale  
Forever boil, alike of winter frosts  
And summer's heat secure. The crystal stream,  
Through rocks resounding, or for many a mile  
O'er the chaf'd pebbles hurl'd, yields wholesome, pure,  
And mellow draughts, except when winter thaws,  
And half the mountains melt into the tide.  
Though thirst were e'er so resolute, *avoid*  
*The sordid lake*, and all such drowsy floods  
As fill from Lethe Belgia's flow canals,  
(With rest corrupt, with vegetation green,  
Squalid with generation and the birth  
Of little monsters,) till the pow'r of fire  
Has from profane embraces disengag'd  
The violated lymph. The virgin stream,  
In boiling, wastes its finer soul in air.

\* May not this be the same with that which lately prevailed at *Medfield*, an account of which we have in this number of the Register?

† HIPPOCRATES.



Nothing like simple element dilutes  
 The food, or gives the chyle \* so soon to flow :  
 But where the stomach, indolent and cold,  
 Toys with its duty, animate with wine  
 'Th' infipid stream, though golden Ceres yields  
 A more voluptuous, a more sprightly draught,  
 Perhaps more active : wine unmix'd, and all  
 The gluey floods that from the vex'd abyfs  
 Of fermentation spring, with spirit fraught,  
 And furious with intoxicating fire,  
*Retard concoction*, and preserve unthaw'd  
 The embodi'd mass. You see what countless years,  
 Embalm'd in fiery quintessence of wine,†  
 The puny wonders of the reptile world,  
 The tender rudiments of life, the slim  
 Unravellings of minute anatomy,  
 Maintain their texture, and unchang'd remain.

We curse not wine ; the vile excess we blame,  
 More fruitful than th' accumulated board  
 Of pain and misery ; for the subtle draught  
 Faster and surer swells the vital tide,  
 And with more active poison than the floods  
 Of grosser crudity convey, pervades  
 The far remote meanders of our frame.

ARMSTRONG.

\* A white, milky fluid, produced by digestion : it is the nutrimentitious part of our food, fitted and prepared for entering into the circulation of the blood.

EDITOR.

† The poet here has reference to those reptiles, insects, and anatomical preparations, which, it is well known, being immersed in spirits of wine, are preserved unchanged for many years ; and hence he takes occasion to argue the pernicious effects of spirituous liquors, taken with food, which, unless it undergo a change in the stomach, and be reduced to a fluid state, is utterly incapable of affording support or nourishment to the human body.

EDITOR.

N. B. The communication in our last number, on the "*natural history of the horse bee*, &c." ascribed to the Rev. ROWLAND GREEN, jun. was from Doct. ROWLAND GREEN, jun. which mistake our Readers will be good enough to correct.

#### CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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THE  
*Medical and Agricultural Register.*

VOL. I.]

JUNE, 1806.

[No. 6.]

M E D I C A L.

*Of Exercise and Labor.—Cautions against irregular and excessive Indulgencies in Labor.—Of Dram-drinking, and the great Havoc those make of themselves, who, engaged in Works of Labor, fly to Liquor for a Spur, whenever Nature droops from too great Exertion.*

[From the Villager's Friend and Physician.]

AS most of you are men who benefit society by your labors, gaining your livelihood by the sweat of your brows, you will not be surpris'd at a few remarks on *exercise and labor*.

Toil and be strong. By toil the flaccid nerves  
Grow firm, and gain a more compacted tone.

*Armstrong.*

Exercise gives strength to every fibre, and energy and spring to all the vital powers. In a word, man is rendered

Robust with labor, and by custom steel'd  
To every casualty of life ;

For strength is increased by being used, and lost by being too much hoarded. But I need not dwell on the advantages derivable from exercise, to you, who have experienced them, while engaged in the labors by which your families are supported : no ; to you whose habits are those of industry, some few cautions against the excessive and irregular indulgence of those habits, will be more beneficial. Be assured then, that all violent and long continued exertions, even in your wonted labors, may not only prove of serious injury to your health, but will also lessen, rather than increase, the weekly provision for your families. Remember that the vital powers, the powers

by which life is continued, can only be urged to a certain point, without injury. If nature be robbed of due repose now, she must repair the loss another time, or sink, overcome, exhausted of the *fine and subtle spirits* :

Pursued too closely, e'en the gentlest toil  
Is waste of health.

*Armstrong.*

He who thus inconsistently, from motives of economy, extravagantly expends his health, may be said to labor hard to catch disease.

The all-wise Disposer of all things has decreed the due exercise of our powers to be an inexhaustible source of pleasure, so that man returns to his daily toil with cheerful alacrity. But excessive exertions take away all zest for work ; and no wonder, for if even too much pleasure will cloy, how much more must too much hard work. No, no : take moderate meals of hard work, and then to it again with a relish for it. Think not, however, I mean to lull you into indolence ; far from it.

Behold the wretch, who flugs his life away,  
Soon swallow'd in disease's sad abyss ;  
While he whom toil has brac'd, or manly play,  
Has light as air each limb, each thought as clear as day.

*Thomson.*

Moderate and regular labor coils up the main spring of life, but wild and irregular fallies may break it. He that is steady is ever ready. Regular exercise will demand regular rest.

—————Weariness  
Can snore upon the flint, when resty sloth  
Finds the down pillow hard.

Watch the steady pace of the sun ; let his rising lead you to labor, and his setting to rest. Besides, I have one truth to disclose to you, which perhaps you have not discovered. Virtues may have bastards, and therefore industry may become the mother of drunkenness : for nature, urged too far, pants and seeks for rest ; but her thoughtless driver spurs her on. The pernicious, the poisonous dram is swallowed, glass after glass, whenever the spirits flag ; and thus, he who gets a *hard hand*, too often gets a *parched mouth* : this as generally leads to the *ale-house*, as that does to the house of *misery and disease*. Consider a little, my friends, how little you gain by earning *six shillings* instead of *four*, when the *retailer* gets *one half* of your earnings, and *physic* runs away with the rest.

But let us not pass the ale-house, without a word or two respecting the good cheer it affords. Most of us are pretty well acquainted with the delightful refreshment a glass of ale

or spirits yields, when a man is fatigued. Well would it be, if we all knew as well the mischiefs arising from taking a little too frequently, what is called *a little drop*, so that we might be sufficiently on our guard against that insidious enemy, *the love of drink*. This is an enemy against whom you should always be on your guard, for he uses every trick of war; sometimes he comes on by slow and unheeded approaches, sometimes his attacks are open and violent, and oftentimes will he fight under false colors, and whilst he is received as a friend, cruelly deprive those he has deluded of every comfort, and at last of life itself. *He who*, being engaged in works of labor, *flies to liquor for a spur, whenever nature droops from too great exertion, makes terrible havoc with himself*. Nature, before worn down, is now forced and strained by these unnatural efforts; and if these be often repeated, the shattered nerves will show the vast damage they have suffered. Tremblings, sinking of the spirits, sleepless nights, and days of dreadful listlessness, will be the forerunners of some deadly malady.

You will, perhaps, be at first surprised at the assertion, but you will, on reflection, I am sure, agree in its being well founded, that *the cautious, but frequent sipper, is more exposed to be overtaken by disease*, in consequence of indulgence in his favorite habit, *than he who revels openly and unguardedly*. The former generally allows the elevation he has experienced from his first sip to subside before he takes his second, and that of the second before he takes his third: thus, gradually instilling the poison into the system, he has not the warning of intoxication to apprise him, that although he exultingly applauds himself for his extraordinary self-denial, the quantity he has sipped exceeds that which, taken by his neighbor with less management, has levelled him to the ground, and rendered him the object of our cautious sipper's harsh reproof. The more bold and shameless drunkard finds a monitor, (though generally too little regarded) in every drunken bout; the beastly situations in which he is placed by them, and the sufferings which succeed, are not entirely unnoticed:

He sleeps; and, waking, finds himself undone!  
For, prodigal of life, in one rash night  
He lavish'd more than might support three days.

*Armstrong.*

Loud but weak resolves are uttered—such filthy excesses are never more to be committed.

Ah, fly deceiver! branded o'er and o'er,  
Yet still believ'd! exulting o'er the wreck  
Of sober vows!

Drunkenness, my friends, that vice, or rather let me say, that crime, which engenders all other crimes, is a baneful curse, wherever it falls. It degrades man below the meanest reptile, renders his sober hours irksome beyond bearing, brings on the most dreadful diseases, and at last places him on a death-bed, the pillow of which it has filled with thorns. Dreadful is this picture, and many of you must feel its truth. But how, you ask, shall we profit by it? How shall we rid ourselves of such a dangerous foe? Not by trifling with him; not by gentle resistance; not by endeavoring gradually to disengage yourself from his horrid gripe: no, an enemy so formidable must be firmly and strongly opposed; not an inch must be yielded to him. Consider, if you break not his neck he will break yours, and perhaps the hearts of those who are dearest to you. Call to your aid self-love, as well as regard and compassion for your family, who innocently suffer for your indiscretions. Crave the support of reason and religion.

Let god-like reason, from her sovereign throne,  
Speak the commanding word—I will—and it is done.  
*Thomson.*

Do not be lulled into a false security, founded on one or two incorrigible drunkards enjoying seeming health, for they own not what they suffer: but judge from a larger scale. Look back to the latter days of all the votaries of Bacchus that come within your recollection, and then you will discover, that in general the wine-bibber is doomed to the torments of the gout, or of the stone or gravel; the dram-drinker becomes bloated with dropsy, and the swiller of beer stained with jaundice.

—————the yellow fiend  
Ting'd with her own accumulated gall.

I am sure, if you but reconsider what has been said, although you may accuse me of preaching, you will not regard a drunken bout as a trifling matter. Look back but to the last adventure of this kind, and strive to

—————recollect  
What follies in your loose, unguarded hour  
Escap'd. For one irrevocable word,  
Perhaps, that meant no harm, you lose a friend;  
Or, in the rage of wine, your hasty hand  
Performs a deed that haunts you to the grave.  
Add, that your means, your health, your parts decay;  
Your friends avoid you; brutishly transform'd,  
They hardly know you; or, if one remains  
To wish you well, he wishes you in heaven.

*Armstrong,*

*For the MEDICAL AND AGRICULTURAL REGISTER.*

DR. ADAMS,

I WAS well pleased to meet, in the Register for April, with Dr. GREEN's communication on the "natural history of the horse bee," &c. &c. especially as I found a correspondence between his ideas on the subject and such as I have long entertained. And as every fact, tending to elucidate an inquiry which is still involved in too much obscurity, will probably be received and read with avidity, not only by the naturalist, but also by every one who is interested in the welfare of that "noble animal," the horse, I presume to offer a few remarks relative to the subject of Dr. GREEN's communication, which, if you deem them worthy of notice, you will please to insert in one of your future numbers.

In addition to the "preventive means" recommended by Dr. GREEN, I believe there is not in nature so powerful, so cheap, and so easy a preventive of bots, as *common salt*. Let a little be given once, twice, or thrice a day, or every other day, beginning in the spring, and continuing it through the summer and autumn: it may, however, in my opinion, be advantageously given to a horse through the year. The efficacy of common salt, in destroying bots, will readily be conceived of, when we recollect its deadly effects on animalculæ of other kinds, such as maggots in putrid cheese, fish, flesh, &c. It is a well known fact, that an undue proportion of common salt, in combination with other elementary principles, is totally destructive to the early dawnings, or more advanced periods, of vegetable and animal life: hence its pernicious influence, if used too liberally, in agriculture; and hence its utility in destroying insects of various kinds. [See Dr. DEAN's New England Farmer, in the words "*insect*" and "*salt*."]

But to attach the credit to these observations to which they are entitled, I feel myself warranted to assert, from my own experience, that a horse that is daily or frequently allowed to eat a little salt, while he is at grass, or even in the stable, that is, during the season of the horse bee, shall not be afflicted with bots in the ensuing winter and spring; neither will he be so much infested with the horse bee as one that is not thus indulged in the use of salt. Let the alimentary canal of any horse be daily or frequently impregnated with the favor of common salt, and it becomes a most ungenial asylum, a most inhospitable *nidus* [*nest*] for the eggs of the horse bee, or the animalculæ of any other kind of insects. Some horses will not suffer themselves to be taken in the pasture, without something is given them, such as corn, oats, salt, &c. and in this

way I learned the use of the latter article in preventing bots : in such cases it is very convenient to carry a little salt to the pasture, in preference to any thing else. It is more than probable, that wetting the nits with strong brine occasionally, will destroy them ; and that the hair on the legs, or other parts of a horse, thus imbrued with brine, will not be frequented by the bee for the attachment of the eggs. It is also advisable to take pains to kill the bee, whenever an opportunity admits of it.

The well known efficacy of mercury, in some of its forms, in destroying worms, lice, &c. annoying man and beast, leads to a belief that it may be usefully employed for the destruction and expulsion of bots ; accordingly Mr. Taplin, in his "Compendium of practical and experimental Farriery," has asserted, page 151, Wilmington edition, 1797, "that *mercurials* are absolutely the only *specifics* from which a certainty of success can be derived, and should, with every intelligent superintendent, and rational practitioner, never be delayed." Pursuant to this opinion, he has given two recipes, containing mercury, but unfortunately without directions for their mode of exhibition ; it is presumed, however, that either of them must be given in such quantity as to purge freely several times, keeping the horse in the intermediate time on a laxative diet, such as boiled rye, raw potatoes, luxuriant new feed, or oats steeped in urine twenty-four hours.—Here follow the recipes :

1. "*Mild purging ball for worms.*"

"Take Barbadoes aloes in powder, six drachms ; jalap in fine powder, three drachms ; castile soap, two drachms ; calomel and ginger in powder, each one drachm ; oil of aniseed, sixty drops ; and syrup of buckthorn sufficient to make the ball."

2. "*Strong purging ball for worms.*"

"Take Barbadoes aloes in powder, nine drachms ; jalap in powder, and soap, each two drachms ; calomel and ginger, each a drachm and half ; oil of aniseed and juniper, each thirty drops ; syrup sufficient to make the mass."

"I think it is not to be doubted that either of the above medicaments must prove efficacious, in destroying and expelling bots, if given in sufficient doses to excite free purging ; but the quantity necessary to produce that effect can be ascertained only by a fair trial, determined by the judgment of the person directing or officiating as farrier, who ought to be acquainted with the nature of the articles composing the forms. Perhaps two or three balls of the first form may be sufficient for one

dose ; "taking care that the horse is not exposed to rain, chilling winds, or rode into water, during" a few days before and ten or twelve after their exhibition, but that he is kept still and warm in that space of time. *Unguentum*, as it is commonly called, may be usefully applied to the nits, once in a while.

Are horses which are constantly stabled ever troubled with bots ? Dr. WILLICH says they are not : he also says, "for the cure of bots in the stomach, calomel should first be given in large quantities, and repeated at intervals : *Æthiop's* mineral may be given afterwards." He says further, that "bots in the straight gut may be cured by giving the horse a spoonful of favin, cut small, once or twice a day, in oats or bran moistened, to which may be added three or four cloves of garlic : " and he recommends, "at intervals," an aloetic purge, composed as follows, viz. "Fine socotrine aloes, ten drachms ; fresh jalap, one drachm ; aristolochia, or birth-wort, and myrrh powdered, each two drachms ; oil of favin and amber, of each one drachm ; syrup of buckthorn, enough to form the whole into a ball."

LATROS.

June 7, 1806.

#### *Remedy for the Sting of Wasps and Bees.*

It has been found by experience, that the best remedy for the sting of wasps and bees, is to apply to the part affected common salt, moistened with a little water. Even in a case where the patient had incautiously swallowed a wasp, in a draught of beer, and been stung by it in the windpipe, the alarming symptoms that ensued were almost instantly relieved by swallowing repeated doses of water saturated with salt.

*London Month. Mag.*

*Stings of bees* are more virulent than even those of wasps, and sometimes attended with very violent effects. As the sting is bearded, it is always left in the wound. When, therefore, a person is stung by a bee, the sting should be instantly extracted ; for, by its peculiar form, it will penetrate progressively deeper into the wound, and communicate more of its poison, according to the time it is suffered to remain. It should be carefully pulled out with a steady hand ; for if any part of it breaks in, remedies will in a great measure be ineffectual. For healing the stings of these insects, common salt is almost a certain, and almost an instantaneous cure.

*Domest. Encyc.*



## AGRICULTURAL.

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For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

IF you think the following will aid the design of your useful Register, and communicate desirable information, you are at liberty to publish it.

A Discovery to prevent the Yellow Bugs from injuring Cucumbers.

Every year my cucumbers have been much infested with the *yellow bugs*, (vulgarly called,) and often my first crops have partly or wholly been destroyed by them; this excited me to inquire for a remedy, to obviate their ravages: successively I applied, and to the best of my skill, many heretofore recommended prescriptions: they consisted principally of fetid matters, such as hen-dung, &c. &c. diluted with water, and sprinkled upon the plants several times every day. From attentive observation, I think it is certain they have no direct tendency to drive the insects from their purpose. Where applications of this sort are frequently used, it is evident that the bugs will not make so great destruction of the plants as when they are entirely neglected, because the bugs are frightened from the plants at one's frequent approach; I attribute the advantage to this, more than to the offensive matter applied. I noticed further, that these insects, while feasting themselves, were generally inclined to the under side of the leaves, that the fluid sprinkled upon them settled upon the upper side. This induced me to try another thing, said to be effectual, which was *sot* pulverized; this I put into a common pepper box, and with one hand turned up the leaves moistened with dew, and with the other sifted on a sufficient quantity to cover them. I visited my plants two or three hours after, and notwithstanding, found bugs in great numbers had made their way to the texture of the leaves. It strikes me forcibly, from observation, that these fetid fluids, &c., though highly offensive to our senses, are not disagreeable to theirs.

From these failures, I concluded that there was no method which would infallibly preserve the young cucumbers from these destroyers, but *wholly to exclude them an opportunity to come in contact*. In order completely to fence them out, I made a *hoop*, like that of a sieve, from twelve to fifteen inches in diam-

eter, and about four and an half deep; then from the inside of this hoop I bent two small sticks, and confined them with small nails, crossing each other at right angles, forming an arch above the hoop nine or twelve inches; I then drew over these curved sticks some coarse gauze, which I fastened with another small hoop, made for the purpose, similar to confining a sieve bottom. Any other thin open stuff will do instead of gauze, such as very fine millinet, &c. but it must be of so fine a texture that the bugs cannot penetrate it, and so open that it will admit sufficient light and air to nourish and make healthy the plants. I then placed them over the hills of my cucumbers, and pressed them about one inch into the ground, as the bugs will sometimes crawl a little under the loose soil, as well as effectually to secure them from the *grub worms*, as they travel nearly or quite on the surface.

I perceived my cucumbers flourished more than heretofore, which, I think, was caused by the increased heat afforded by the hoops. These coverings need not be removed, except to hoe and water the plants, until they entirely fill the dome; then the hoops may be removed, without endangering the cucumbers, as by this time the branches and leaves are thickly covered with hard and sharp prickles, which prove to them a proper defence. In this way *cucumbers*, and other plants of the like kind, may be preserved from devouring insects.

The expense of these hoops, with their appendages, will not exceed from 33 to 42 cents each; and six hills of cucumbers, defended by these means, will supply an ordinary family with sufficient for daily consumption. After the season for using the hoops is past, they may be laid carefully by, until the next season; and the probability is, they will last five years or more without repairs.

NATHANIEL MILLER.

Franklin, (Mass.) June 9, 1806.

Rules and Directions for putting down Butter. By J. ANDERSON, L. L. D. F. R. S. &c. *Extracted from the Papers of the Bath Agricultural Society.*

WOODEN vessels are the most proper for containing salted butter. Oak is the best wood for the bottom and staves. Broad split hoops are to be preferred to all others. Iron hoops should be rejected, as the rust of them will in time sink through the wood, and injure the color of the butter. To season a new vessel, for the reception of salted butter, requires

great care: it should be filled *frequently* with scalding water, allowing it to remain till it slowly cools. After the butter has been cleaned from the milk, it is ready for being salted. Let the vessel be rendered as clean and as sweet as possible, and be rubbed all over in the inside with common salt; and let a little melted butter be run into the cavity between the bottom and the sides at their joining, so as to fill it, and make it every where flush with the bottom and sides: it is then fit to receive the butter.

Common salt is almost the only substance hitherto employed for preserving butter. I have found by experience that the following composition is in many respects preferable to it, as it not only preserves the butter more effectually from any taint of rancidity, but makes it look better and taste sweeter and more marrowy, than if the same butter had been cured with common salt alone.

[Here follows the receipt for making the composition, which is the same with that communicated by our correspondent, and published in the last number of the Register, page 76, which see.]

Of this composition, one ounce should be put to every sixteen ounces of butter: mix this salt thoroughly with the butter, as soon as it has been freed from the milk, [which should be done effectually,] and put it, without loss of time, into the vessel prepared to receive it, pressing it so close as to have no air holes, or any kind of cavities within it; smooth the surface, and if you expect it will be more than two days before you add more, cover it close up with a piece of clean linen, and over that a piece of fine linen that has been dipped in melted butter, that is exactly fitted to the edges of the vessel all round, so as to exclude the air as much as possible, without the assistance of any watery brine. When more butter is to be added, remove the coverings, and let the butter be applied close above the former, pressing it down, and smoothing it as before, and so on till the vessel is full. When full, let the two covers be spread over it with the greatest care, and let a little melted butter be poured all round the edges, so as to fill up every cranny, and effectually *exclude the air*. A little salt may then be strewed over the whole, and the cover firmly fixed down, to remain closely shut till opened for use. If this be carefully done, the butter may be kept perfectly sound in this climate for many years.

It must be remarked, that butter cured in this manner, does not taste well till it has stood at least a fortnight after being salted: after that period is elapsed, it eats with a rich marrowy taste that no other butter ever acquires. Butter thus cured will go well to the East or West Indies.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

FINDING by experience that cabbages thrive far better to plant the seed in the hills where they are to stand, than to transplant them, it has been an inducement to communicate it for the Register; if you should think it an improvement worth noting, please to insert it.

The difference in my yard the last season was very obvious: a part I transplanted, and a part was planted in the hill; the latter was nearly a third better than those transplanted. By transplanting, the roots, many of them, are injured, and by that means grow *stump-footed*. Judgment must be used as to the time of planting, manuring the land, &c. Climate and soil vary, in a greater or less degree, all kinds of vegetation.

It is found a preventive against insects, to mix the seed, ten or twelve hours before planted, with sulphur: two ounces of sulphur to a pound of seed. Also, smoking the seed, by hanging it up in the chimney in a thin cloth, several days before planted, is found efficacious. This treatment with seed before planted, of various kinds, has been found to have a very good effect; such as *cucumbers, water-melons, musk-melons, turnips, parsnips, beets, &c. &c.*

Query.—Would wheat, when the seed has been so treated, avoid the *Hessian fly*?

Cautions and Directions in Gardening.

The following articles were prepared for the last number, but were omitted for want of room.

THE *thinning* of seedling crops (such as are designed to produce seed) is a very necessary thing to be done in *time*, before the young plants have drawn one another up too much, by which they become weak and out of form, and sometimes never do well afterwards. All plants grow stronger, and ripen their juices better, when the air circulates freely round them, and the sun is not prevented from an immediate influence; an attention to which should be paid from the first appearance of plants breaking ground.

In *thinning close* crops, as onions, carrots, turnips, &c. be sure they are not left too near; for instead of reaping a greater produce, there would surely be a less. When they stand too close, they will make tall and large tops, but are prevented swelling in their roots: better to err on the *wide* side, for though there are fewer plants they will be finer.

In *setting out plants*, be sure to do it as *early* as may be, and always allow room enough for this work; being thus treated,

vegetables will come forward sooner, larger, and of a superior flavor. These advantages are seen in all things, but in *lettuces* particularly, which often have not half the room allowed them they should.

MARSHALL.

Different sorts of plants, intended for the producing of seed, ought not to be suffered to flower together, a caution deserving attention.—In RAY's history of plants we have the following anecdote : One RICHARD BAAL, a gardener at Brentford, sold a great quantity of cauliflower seed, which he raised in his own garden, to several gardeners in the suburbs of London, who carefully sowed the seed in good ground, but they produced nothing but the common long leaved cabbage ; for which reason they complained they were imposed upon, and commenced a suit against the afore said BAAL, in Westminster hall : the judge's opinion was, that BAAL must return the gardeners their money, and also make good their loss of time and crops. This cheat we ought not to lay to the poor gardener's charge, for it is wholly to be ascribed to his good plants being impregnated by the common cabbage. Wherefore, if any one has an excellent cabbage, he ought not to let it flower in the same bed or beside any other of an inferior sort, lest the good sort should be impregnated with the dust [pollen, prepared in the male flower of plants] of the other, and the seeds produce a degenerate race.

[The same thing happens when melons and cucumbers are planted together, as many must have noticed. It is not unfrequent to hear persons complaining that their melons are *bad*. On an inquiry into this circumstance, it will often be found that they have been raised and have flowered with cucumbers, and that instead of that flavor which is natural, and which constitutes the *excellence* of the fruit, they are rapid and unpalatable.]

MISCELLANEOUS ARTICLES.

ARTICLE XVI.

A Receipt for making Summer Beer.

DR. ADAMS,

IF you think the following receipt for making summer beer worthy a place in the Register, please to insert it. It is far preferable to cider, either for health or to quench thirst.

D. C.

Take four quarts of molasses, half a pint of yeast, and a spoonful of powdered race ginger; put these ingredients into your vessel, and pour on them two gallons of scalding hot water; shake them well till it ferments; and add thirteen gallons of cold water, to fill up the cask. Let the liquor ferment about twelve hours, when it will be fit for use. It may be kept in bottles to a great age.

ANOTHER.—*Good wholesome Small Beer, which will not sour.*

Take two ounces of hops, and boil them three or four hours in three or four pailfuls of water; then scald two quarts of molasses in the liquor, and turn it up into a clean half barrel, boiling hot; then fill it up with cold water; before it is quite full, put in your emptyings or yeast to work it: the next day you will have *agreeable wholesome small beer*, that will not fill with wind as that which is brewed from malt or bran; and it will keep good till it is all drank out.

Receipt for making a very pleasant Beer.

To ten quarts of water add *one bottle of porter*, and one pound of brown sugar, or a pint of molasses. After they have been well mixed, pour the liquor into bottles, and place them loosely corked in a cool cellar. In two or three days it will be fit for use. A spoonful of ginger, added to the mixture, renders it more lively and agreeable to the taste.

ARTICLE XVII.

Method of destroying Bed Bugs.

DR. ADAMS,

THE following is an effectual remedy against that infamous insect, called the *bed bug*: thinking it might be in some degree of public utility, I have sent it for insertion in the Register, if agreeable.

It is simply a *clear strong lime water*. Wash the parts of the bed frame where the bugs reside, which is the joints and passage for the cord: it will be found to destroy even *unhatched eggs*. And the lime will not injure the bed clothing in the smallest degree.

ARTICLE XVIII.

Receipt for preserving Eggs.

DR. ADAMS,

FINDING the following receipt for preserving *eggs* as good as is recommended, I have sent it for insertion in the Register; if you think it will be of utility, please to insert it.

Into a tub put eight quarts of unslacked lime, half a pound of salt, and two ounces of cream of tartar, mix in water, to bear an egg with its top just above water. Eggs have been kept good, in a composition like this, for two years.

ARTICLE XIX.

Result of Meteorological and other Observations, for May, 1806; made at DEERFIELD, PORTSMOUTH, and BOSTON:—For the Medical and Agricultural Register.

May, 1806.	Mean degs. at sun-rise.	Mean degs. at P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	46	71	58½	29th day 88°	12th day 32°	N. W. & N. E.			2
Portsmouth	52	62½	57	25 80	2 45	N. E. & N. W.			
Boston	49	62½	56½	28 88	2 40	N. E. & N. W.			

WEATHER.

1st day,	16	
2 } alternate clouds and sunshine each	17	
4 } day; brisk winds; apple trees	18	
5 } beginning to put forth their	19	a succession of fair and very dry
6 } leaves.	20	weather; some clouds; from
7 }	21	the 20th to the 24th, very cold
8 } dull mornings; a little rain in the	22	for the season; a frost on the
9 } afternoons.	23	night of the 23d, after which
10—cloudy and cold.	24	more pleasant, but extremely
11—alternate clouds and sunshine.	25	dry and dusty; Deerfield, thun-
12 } fair and pleasant.	26	der and lightning on the 25th,
13 }	27	and a few drops of rain.
14—cloudy, little rain most of the day.	28	
15—cloudy morning; fair.	29	
	30	
	31—steady, moderate rain.	

Townsend, May, 1806.

A remarkably backward season; the scarcity of hay very great; *cowslips* were not in the blossom till the 3d; people were generally engaged in planting about the 16th; the 22d was a frosty morning; a very heavy frost on the 23d. The prospect of fruit is but very indifferent in this place; winter grain has a promising appearance; grass is backward and very thin.

Canker worms.—Where the precaution of *tarring* has been neglected, the apple trees, in many places in the vicinity of Boston, have the appearance of having been scorched by fire.

Deerfield, May, 1806.

Of the progress of vegetation.—This was very small previous to the commencement of this month; now we see “all matter quick, and bursting into birth.” Apple trees put forth their leaves the 6th of the month; peach trees were in full blossom the 13th; cherries and plums the 14th; apple blossoms began to appear the 17th, and on the 20th they were in full bloom. Most of the peach trees on our old interval and home lot lands in this town, are nearly dead: these trees for several years past have flourished and produced fruit plentifully; but the soil of our low land does not seem to be congenial to them, they are apt to *winter kill*. The month has been remarkably dry. For several days the atmosphere has been filled with smoke. On the morning of the 23d we had a frost, which injured corn, beans, &c. English grain and grass have suffered for want of rain. It is said to have been as dry as any spring known in this part of the country.

State of health, &c.—The month has been healthy. There is now in this town a lady, in the bloom of life, who is wasting with a consumption. Two have died out of the same family, of this disease, within three years. The lady now afflicted is under the care of an able physician, who has administered to her the most approved medicines, but with little success: he is now trying the method described by Dr. BEDDOES, in his “Observations on the Medical and Domestic Management of Consumption,” viz. *Residence in a stable with cows*: this appeared at first to check the disorder, and strong hopes were entertained that it might effect a cure; but these hopes have nearly vanished, and it is feared that this will add one more to the number of unsuccessful experiments of this mode of treatment.

Of storms, &c.—In the evening of the 25th we had lightning and thunder in the north-east, and a few drops of rain fell. I am informed this was a plentiful shower 30 or 40 miles eastward of this place. The 31st was a moderately rainy day, and has given vegetation a more healthy aspect. A gentleman who kept an account of the *quantity of snow* which fell in this town the last winter, has just handed me the total of his account, which is 76 inches.

EPH. HOYT.

Extract from a public Print.

THE *Maryland* papers contain accounts of great destruction by *caterpillars*. They attack every green thing, white clover excepted. Whole fields of wheat are invaded by them, and the destruction of head, stalk, and blade is immediate. They proceed in immense numbers, discoloring the ground, and baffling the hopes of the husbandman. They are smooth, and vary in length, from one quarter to an inch and an half.

N O T E S.

To Readers and Correspondents.

THERE is hardly any thing, the want of which has been more *sensibly* felt, or which has been more studiously sought for, by husbandmen and gardeners, than a remedy against the depredations of that common and universal enemy to cucumbers, the *yellow bug*. Something with this intention, we are sensible, has, before this time, been expected of us, by many of our subscribers. Possessing, however, but little confidence in the various mixtures and decoctions of fetid and other substances, which, with this view, have been so often recommended, and unwilling ourselves to give a fruitless and unsuccessful direction to any portion of the labor and the industry of our country, we have therefore declined every solicitation of this nature, waiting rather till chance or ingenuity should suggest some more *probable* and more effectual remedy than any heretofore proposed or known. Of these our hopes we have not been disappointed. The method proposed and adopted by Dr. MILLER, and published in this number of the Register, to be approved, needs only to be known. Nothing can be more effectual, not only against the *yellow bug*, but also against what is vulgarly called the *pumpkin bug*, and even the *grub worm*. This little simple piece of machinery may not unfitly be called the *Cucumber-Castle*. Not only is this *the most effectual thing*, but the use of it, every circumstance taken into view, compared with that of any *steep* or *decoction*, must be acknowledged *the greatest economy*, both of time and money: it is therefore sincerely re-

commended to the attention of every husbandman and gardener.

THIS number completes the *first half year* of the Register. The support, thus far, which we have received by subscriptions and by communications, has equalled our expectations for the time. The Register is now scattered very extensively over this part of the country. The many expressions of approbation, in private letters, which have been received from gentlemen distinguished by their knowledge and skill in medicine and agriculture, lead us to suppose, that, by the attentions of our correspondents, we have been enabled, in some degree, to *deserve well of the public*. We therefore hope for the continuance of their favors, and that the friends to health and agriculture will lend us their influence and support to bring the Register into such *general* and increased circulation, as to enable us to undertake and pursue other and yet more expensive measures of obtaining the end and accomplishing the designs of this publication.

OUR correspondents will accept our renewed assurances of gratitude to them for their multiplied attentions. We hope that others, who, by their experience and opportunity, may have it in their power, will be induced to imitate these examples. A number of communications have been received, which will be brought forward in their order. The wishes of "IATROS" shall be gratified as soon as it shall be consistent with our other engagements.

Erratum.—In our last number, page 72, the sixth line from the bottom, for "*warm water*," read, *warm weather*.

CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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THE
Medical and Agricultural Register.

VOL. I.]

JULY, 1806.

[No. 7.]

MEDICAL.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

THE following extract is submitted to your disposal.

PASSAMAQUODDY.

Extract from a Manuscript Oration, read a few Years since, before an Association of Physicians, instituted in one of the Counties in this Commonwealth, for Medical Improvement.

“ A physician is never without an object on which to write, or which commands his attention as an artist or a philosopher. All nature is an open volume for his contemplation and inquiries : the silent and unfathomed recesses of the ocean and the earth ; the hitherto almost unattempted *arcana* [secrets] of the animal, vegetable, and mineral kingdoms of our country ; the *terra incognita* * of the animal body and human constitution, and the varying state of the latter, owing to the numberless influences of physical and moral causes on it ; the present imperfect nomenclature of nosology [‘ arrangement of disorders,’] and *materia medica* [arrangement of medicines ;] the insidious and perplexing character which certain diseases have assumed, within half a century past ; and the incurable nature of others ; all call loudly on physicians for laborious diligence and patient investigation : nay, more, the imperfect state of our art requires that we be permitted to penetrate and explore the cold bosom of death ! that we may draw instruc-

* Parts unknown, and facts unexplained.

tion from these tabernacles of clay, when they become insensible to pain, and ought not to excite our sympathy, and before they are consigned to the silent tomb!

"It is to be regretted, that while the various objects of pleasure and profit, which have arrested the attention of man, have been pursued in our country with an ardor equalled only by the spirit of enterprise which has actuated our countrymen, the interests of the healing art have been, till lately, almost wholly neglected. The practice of physic has been '*taken up*' by the lazy, the immoral, and the ignorant; charlatanical imposture has kept pace with the credulity of the vulgar, and the respectability of the business so vilely prostituted, that the term *profession*, as applied to medicine, is a burlesque upon every calling that is decent, regular, or learned. I shall not pause, to apologize to this respectable audience, for this plain statement of facts; persons of sense and discernment (so many of whom I am happy to have the pleasure of addressing) know that my observations are made without the least exaggeration. But it is to be hoped the age is at least beginning to dawn on us, when men will no longer be allowed to forsake the plough, and wield the lancet; and that for the future, something more will be required to qualify men for the exercise of one of the most important callings, than a common school-boy education, and lounging away a *few months* in an apothecary's shop, or in the *solitary** room of a *solitary** practitioner.

"It is time, my brethren, for the legitimate descendants of *Æsculapius* [the god of physic] to rouse from the lethargy which they have derived from, and which has so long oppressed, their fathers, and assert and maintain the rank to which they are entitled by the exercise of one of the most necessary arts. It is incumbent on them to support the dignity and respectability naturally allied to their profession, by their liberality, erudition, and good conduct; and by discountenancing, opposing, and suppressing, as much as possible, the unprincipled presumption of daring medicators. A reformation of the abuses in the practice of physic is certainly practicable, and ought to be attempted, and prosecuted with zeal and perseverance, lest posterity should charge us of having lived to no useful purpose, and stigmatize our names with stupidity."

Massachusetts, June, 1806.

* Alluding to the very inadequate means for giving medical instruction, which some persons possess, who pretend to take pupils; having few or no medical books, a scanty medical apparatus, and but little business; being unconnected with medical societies, and having no interest in social medical libraries; and, worst of all, being *profoundly ignorant themselves!*

HUMANÉ SOCIETY OF PHILADELPHIA.

Directions for recovering Persons who are supposed to be dead from Drowning; also, for preventing and curing the Disorders produced by drinking cold Liquors, and by the action of noxious Vapours, Lightning, and excessive Heat upon the human Body. Published by the Humane Society of Philadelphia. 1805.

Directions for recovering Persons who are supposed to be dead, from Drowning.

1. As soon as the body is taken out of the water, it must be conveyed on a board or bier if at hand, to a house, or any other place, where it can be laid dry and warm, avoiding the usual destructive methods of hanging it by the heels, rolling it on a barrel, or placing it across a log on the belly.

2. The clothes must be immediately stripped off, and the body wrapped up in blankets, well warmed. It should be laid on its back, with the head a little raised. If the weather be cold, it should be placed near a fire, and an heated warming-pan should be passed over the body; but in warm weather it will be sufficient to place it between two blankets well heated, or in the sunshine, taking care to prevent the room from being crowded, with any persons who are not necessarily employed about the Body.

3. At the same time, the whole body should be rubbed with the hand, or with hot woollen cloths. The rubbing should be moderate, but continued with industry, and particularly about the breast. Apply also heated bricks to the feet, belly, and breast. The immediate application of frictions is of the utmost importance, as many have been recovered by frictions only, when early used.

4. As soon as it can possibly be done, a bellows should be applied to one nostril, while the other nostril and the mouth are kept closed, and the lower end of the prominent part of the wind-pipe (or that part which is called by the anatomists, *pomum adami*) is pressed backward. The bellows is to be worked in this situation; and when the breast is swelled by it, the bellows should stop, and an assistant should press the belly upwards, to force the air out. The bellows should then be applied as before, and the belly again be pressed; this process should be repeated from twenty to thirty times in a minute, so as to imitate natural breathing as nearly as possible. Some volatile spirits, heated may be held under the valve of the bellows whilst it works. If a bellows cannot be procured, some per-

son should blow into one of the nostrils, through a pipe or quill, whilst the other nostril and mouth are closed as before ; or if a pipe or quill be not at hand, he should blow into the mouth, whilst both nostrils are closed ; but whenever a bellows can be procured, it is to be preferred, as air forced in by this means, will be much more serviceable than air which has already been breathed.

5. During this time, a large quantity of ashes, water, salt, or sand, should be heated ; and as soon as it is milk-warm, the body must be placed in it ; the blowing and rubbing are then to be continued as before ; and when the water, ashes, or salt are cooled, some warmer must be added, so that the whole may be kept milk-warm.

Loud noises have sometimes proved successful in recovering such persons and restoring to life. When signs of returning life are apparent, the frictions must be continued, but more gently.

These methods must be continued three or four hours, as in several instances they have proved successful, although no signs of life appeared until that time. When the patient is able to swallow, he must take some wine, brandy, or rum and water. Bleeding or purging ought not to be used, without consulting a physician, who should be called in as soon as possible : but clysters of salt and water may be injected.

After life has returned, if convulsions come on, blood should be taken, by direction of a physician.

To prevent the fatal Effects of drinking cold Water, or cold Liquors of any kind in warm Weather.

1. Avoid drinking whilst you are warm, or,
2. Drink only a small quantity at once, and let it remain a short time in your mouth before you swallow it ; or,
3. Wash your hands and face, and rinse your mouth with cold water before you drink. If these precautions have been neglected, and the disorder incident to drinking cold water hath been produced, the first, and in most instances, the only remedy to be administered, is *sixty drops of liquid laudanum* in spirit and water, or warm drink of any kind.

If this should fail of giving relief, the same quantity may be given twenty minutes afterwards.

When laudanum cannot be obtained, rum and water, or warm water should be given. Vomits and bleeding should not be used without consulting a physician.

The dangerous Effects of noxious Vapours, from Wells, Cellars, fermenting Liquors, &c. may be prevented,

By procuring a free circulation of air, either by ventilators or opening the doors or windows, where it is confined, or by changing the air, by keeping fires in the infected place, or by throwing in stone-lime recently powdered.

These precautions should be taken, before entering into such suspected places ; or a lighted candle should be first introduced, which will go out if the air is bad. When a person is let down into a well, he should be carefully watched, and drawn up again on the least change. But when a person is apparently dead, from the above-mentioned cause, the first thing to be done is to remove the body to a cool place in a wholesome air ; then let the body be stripped, and let cold water be thrown from buckets over it for some time. This is particularly useful in cases of apparent death from drunkenness—Let the treatment now be the same as that for drowned persons. The head should be raised a little ; and continued frictions, with blowing into the nostril with a bellows, should be practised for several hours.

In Case of Suffocation from the Fumes of burning Charcoal,

The general treatment recommended for curing the disorders brought on by noxious vapours, is to be applied ; but the dangerous effects of this may be prevented, by taking care not to sit near it when burning ; to burn it in a chimney ; and where there is no chimney, to keep the door open, and to place a large tub of water in the room.

In all these, as well as in cases of drowned persons, moderate purges and bleeding are only to be used, with the advice of a physician.

To prevent the fatal Effects of Lightning.

Let your house be provided with an iron conductor ; but when this cannot be had, avoid sitting or standing near the window, door, or walls of an house, during the time of a thunder gust. The nearer you are placed to the middle of a room, the better. When you are not in a house, avoid flying to the cover of the woods, or of a solitary tree for safety.

When a person is struck by lightning, strip the body and throw buckets full of cold water over it for ten or fifteen minutes ; let continued frictions and inflations of the lungs be also practised : let gentle shocks of electricity be made to pass through the chest, when a skilful person can be procured to apply it ; and apply blisters to the breast.

To prevent Danger from Exposure to the excessive Heat of the Sun.

Disorders from this cause, or (as they are commonly termed) *strokes of the sun*, may be expected, when a person who is exposed to his rays is affected with a violent head-ache, attended with throbbing or with giddiness; where the disorder takes place, these symptoms are followed by faintness and great insensibility, with violent heat and dryness of the skin, redness and dryness of the eyes, difficulty of breathing, and, according as the disease is more or less violent, with a difficulty, or entire inability of speaking or moving.

To guard against these dangerous effects of heat, it will be proper,

1. To avoid labour, or violent exercise, or exposing yourself to the rays of the sun, immediately after eating a hearty meal:

2. To avoid drinking spirits of any kind, when you are thus exposed. These add an internal fire to the heat of the sun. Vinegar and water, sweetened with molasses or brown sugar, butter-milk and water, small beer, whey, or milk and water, are the most proper drinks for people who are exposed to excessive heat. But the less a person drinks of liquors of any kind *in the forenoon*, the better will he endure the heat of a warm day.

3. To wear a white hat, or to cover a black one with white paper, when you are necessarily exposed to the hot sun, and to avoid standing still when in such a situation.

4. To retire into the shade as soon as you begin to be affected with pain or throbbing in the head, with giddiness or with faintness.

If these precautions have been neglected, and the symptoms above described have come on, it will be proper,

1. To remove the person so affected into a cool, dry place, and to loosen all his garments, particularly those around his neck and breast.

2. To examine whether the pulse at the wrists or temples beats forcibly, and if it does, to bleed immediately; but if the pulse be weak, or cannot be perceived, bleeding must not be performed.

3. To place his feet and legs (or if it can be done) the lower half of his body in warm water. But if this remedy fails,

4. To apply linen clothes wet with cold water, or with cold water and vinegar, to the temples and all over the head.

5. To administer plentiful draughts of vinegar and water sweetened.

In all cases of this kind, a physician should be sent for, unless the patient recovers speedily.

AGRICULTURAL.

Important Information in Agriculture and Gardening.

A VERY sensible writer in the Register, on the subject of fruit trees, observes, that "*the want of rules and directions is not half so much to be lamented as the general want of care.*" This observation, it is believed, may, with great truth be applied to farming-men (to others as well) in the management of many of their affairs; and, perhaps, never more justly, than in *their choice of seed* for planting or sowing. It is generally known that seed for this purpose ought to be selected from *plants of the greatest perfection*; yet, how few do we find exercising this care in a proper way!

Now is the season for calling up the attention to this subject, in order to be prepared for the *seed-time* of another year. We have accordingly selected the following letter from JOSEPH COOPER, Esq. of *New Jersey*, to a gentleman in *Philadelphia*, on this subject, as exhibiting to our agricultural friends, a *just pattern* for their imitation.

Cooper's Point, April 17, 1799.

RESPECTED FRIEND,

KIND Providence having placed me in a station of life which obliged me to procure a living by industry, and that principally in the agricultural line, it has caused me to be a strict observer of the works of nature, with respect to such parts of the vegetable creation as have come under my particular notice, and have been greatly embarrassed at the opinion very generally entertained by farmers and gardeners, that changing seeds, roots and plants to distant places, or different soils or climates, is beneficial to agriculture, not agreeing with my observations or practice. This induced me to make many experiments on that head, all of which in more than forty years practice have operated to prove to my satisfaction, that the above opinion is not well founded, and if so, must be extremely prejudicial to agriculture, as it turns the attention of the husbandman from what appears to me one great object, viz. that of selecting seeds and roots for planting or sowing, from such vegetables as come to the greatest perfection in the soil which he cultivates.

What induced me to make experiments on that head, was, observing that all kinds of vegetables were continually varying

in their growth, quality, production and time of maturity. This led me to believe that the great Author of nature, has so constructed that wonderful machine, if I may be allowed the expression, as to incline every kind of soil and climate to naturalize all kinds of vegetables, that it will produce at any rate, the better to suit them, if the agriculturalists will do their part in selecting the most proper feed. In support of which I will take the liberty of subjoining a few facts and experiments, out of an inconceivable number which have all combined to prove the above to my satisfaction.

In, or about the year 1746, my father procured the seeds of the long warty squash, which have been kept on the farm ever since, without changing, and are now far preferable to what they were at first. Our early peas were procured from London the spring before Braddock's defeat, and have been planted successively every season since on the place. They have not been changed, and are now preferable to what they were when first obtained. The seed of our asparagus was procured from New York, in the year 1752, since which time I have not planted a seed but what grew on my beds, and by selecting the seed, from the largest stalks, I have improved it greatly.

A complaint is very general, that potatoes of every kind degenerate at which I am not surpris'd, when the most proper means to produce that effect is constantly practis'd; to wit, using or selling the best, and planting the refuse; by which means almost the whole of those planted are the produce of plants the most degenerated. The consideration of which induced me to try an opposite method. Having often observed that some plants or vines produced potatoes larger, better shaped, and in greater abundance than others, without any apparent reason except the operations of nature, it induced me to save a quantity from such only for planting the ensuing season, and I was highly gratified in finding their production exceed that of others of the same kind, planted at the same time, and with every equal advantage, beyond my expectation, in size, shape, and quantity: this induced me to continue the practice, and I am satisfied that I have been fully compensated for all the additional trouble.

A circumstance happened respecting potatoes, which may be worth relating; a woman whom I met in market requested me to bring half a bushel of sweet potatoes for seed the next market day, which I promised to do, but going through the market on that day, previous to her son's coming for the potatoes, I observed the woman selling such as I had brought for her; when the boy came, I asked him the reason

they wanted potatoes for seed, while they were selling their own ; his answer was that his father said, if they did not get seed from me once in three or four years, their potatoes would be good for nothing. *Query*, if he had used the same means in selecting his potatoes for planting as I did, whether he would have profited by changing with one who used the other method ?

In discoursing with a friend who lived at a great distance from me, on the above subject, he introduced two instances in favor of changing seed ; one was asparagus, the other radish seed, he had from me ; the production of both he said was preferable to any thing of the kind ever seen in that neighborhood, which was near 100 miles distant, to which he ascribed the benefit ; but in two or three years the radishes degenerated so as to be no better than what he had before. I asked his method of saving seed ; he said he had no other radishes in his garden, and when they had pulled what was fit for use, let the others go to seed. I then told him my method, viz.—As soon as radishes are fit for use, I dig up ten or twelve of those which please me best, as to colour, shape, &c. and plant them at least 100 yards from where any others bloom at the time they do : this, I informed him, was the best method I knew of, to improve any kind of vegetables, varying the process agreeable to their nature ; and as he had, in my opinion, taken the most proper method to degenerate his, I asked if he thought I should be benefited by exchanging with him ? His answer was, he believed I was the best gardener.

In, or about the year 1772, a friend sent me a few grains of a small kind of Indian corn, the grains of which were not larger than goose shot, which he informed me, by a note in which they were enclosed, were originally from Guinea, and produced from eight to ten ears on a stalk. Those grains I planted, and found the production to answer the description, but the ears small, and few of them ripe before frost. I saved some of the largest and earliest, and planted it between rows of larger and earlier kinds of corn, which produced a mixture to advantage ; then I saved seed from stalks that produced the greatest number of the largest ears, and first ripe, which I planted the ensuing season and was not a little gratified to find its production preferable both in quantity and quality to that of any corn I had ever planted. This kind of corn I have continued planting ever since, selecting that designed for seed in the manner I would wish others to try, viz.—When the first ears are ripe enough for seed, gather a sufficient quantity for early corn, or replanting ; and at the time you would wish

your corn to be ripe generally, gather a sufficient quantity for planting the next year, having particular care to take it from stalks that are large at bottom, of a regular taper, not over tall, the ears set low, and containing the greatest number of good sizeable ears of the best quality; let it dry speedily; and from the corn gathered as last described, plant your main crop, and if any hills should be missing, replant from that first gathered, which will cause the crop to ripen more regularly than is common, which is a great benefit. The above mentioned I have practised many years, and am satisfied it has increased the quantity, and improved the quality of my crops beyond what any person would imagine, who has not tried the experiments. The distance of planting corn, and number of grains in a hill, are matters many differ in; perhaps different soils may require a difference in both these respects; but in every kind of soil I have tried, I find planting the rows six feet asunder each way, as near at right angles as may be, and leaving not more than four stalks in a hill, produces the best crop. The common method of saving seed corn, by taking the ears from the heap, or crib, is attended with two disadvantages; one is, the taking the largest ears, which have generally grown but one on a stalk; this lessens the production. The other is, taking ears that have ripened at different times, which causes the production to do the same.

A striking instance of plants being naturalized happened by Colonel Matlock sending some water-melon seed from Georgia, which he informed me by a letter were of superior quality; knowing seed from vegetables which had grown in more southern climates required a longer summer than what grew here, I gave them the most favourable situation, and used glasses to bring them forward, yet very few ripened to perfection; but finding them to be as excellent in quality as described, I saved seed from those first ripe; and by continuing that practice four or five years, they became as early water-melons as I ever had.

Many admit the above errors from foreign flax seed producing the best flax in Ireland; but when it is considered that it is the bark of the stalk only, that is used in Ireland, which is in the best perfection before the seed is ripe, and that part not used from any other plant except hemp, the argument falls to the ground when applied to other vegetables.

For many years past, I have renewed the whole seed of my winter grain, from a single plant which I have observed to be more productive, and of better quality than the rest, which I am satisfied, has been of great use. And I am fully of opinion, that all kinds of garden vegetables may be improved by the foregoing methods; particular care being taken that different

kinds of the same species of vegetables are not in bloom at the same time near together, as by that happening, they mix, degenerate, and each kind is injured.

I am sensible the foregoing will meet with great opposition and contradiction, but as an experiment is safe and easy, I hope it will induce persons of more leisure, ability, and observation than myself, to make trial, as a mean of improving the agriculture of our country, which is the sincere wish of thy friend,

JOSEPH COOPER.

Potatoes preferable to a Summer-fallow for Wheat.

Extract of a Letter from the Rev. SAMUEL AUSTIN, of Worcester, to the Editor; dated at Worcester, Feb. 24, 1806.

"THERE is one species of husbandry, not in general practice, in which I have made some experiments with very considerable success; that is, to *substitute a crop of potatoes in the room of a summer fallow** as a preparation for wheat. Wheat is doubtless the best and the most profitable grain that can be raised. No species of vegetable adds so much ornament to a country, and none affords a more essential or grateful part of that aliment by which human life is preserved. The potatoe also is a valuable root. For the horse it is an excellent and healthful substitute, for the green grass which he crops in his summer pasture, and seems nearly indispensable to be united with his dry winter fodder, to preserve him from those diseases to which he is so exposed in the cold season. Every intelligent farmer knows its value for feeding his swine, his sheep, and his cattle; and no crop is more sure or more easily raised; none is so plentiful. Warm, loamy land, and such is the greatest part of this Commonwealth, well manured, will yield *three hundred bushels* to the acre. They may be taken off, if planted in season, by the middle of September, and the ground will be in the best situation to put in immediately a crop of wheat. This is altogether better than summer fallowing, and the crop of potatoes is a clear saving. I have, in this way, had *twenty five* bushels of most excellent winter wheat on the acre. I have now a piece of land under wheat according to this mode of management, which is of so promising an appearance as to be noticed with special attention by my neighbors. The land ought to have an early fall plowing, if under a binding sward, and the potatoes should be hoed twice. If this mode of agriculture should go into general practice, the probability is that it would add materially to the prosperity of our country."

* Summer tilling; or letting land rest from one crop without being seeded.

MISCELLANEOUS ARTICLES.

ARTICLE XX.

Result of Meteorological and other Observations, for June, 1806; made at DEERFIELD, WARWICK, MASON, and BOSTON:— For the Medical and Agricultural Register.*

June, 1806.	Mean degs. at sun-ris.	Mean degs. at P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	57½	79	68	8th day † 92°	3d day 42°	S. & S. W.			1
Warwick	55½	79	67	5 92	3 41	W. & N. W.		7	1
Mason	63½	73½	68	23 84	16 54	W. & N. W.			
Boston	60	75½	67	23 92	16 41	Variable.			

WEATHER.

- 1st day, Sunday, cloudy, Full Moon. 16—clear hem- Total eclipse of the Sun.
 shower, thunder and lightning. isphere; Warw. frost in low places.
 2—cloudy, fair, brisk winds; Boston, 17 } fair; light shower, at Warw. more
 sprink. of rain; Deerfield, fair day. 18 } copious.
 3 } 19—fair; Boston and Mason, shower in
 4 } the night.
 5 } 20—cloudy, fair, shower in the even.
 6 } thunder and much lightning.
 7—foggy morning, cloudy, fair. 21—flying clouds and very high winds.
 8 } Sund. foggy morns. light shower. 22—Sund. a clear hemisphere.
 9 } thun. & light. Moon's last quarter. 23 } Moon's first quarter.
 10—cloudy, fair. 24 }
 11—cloudy, rain. 25 } fair weather,
 12 } alternate clouds and sunshine. 26 } some clouds.
 13 } 27 }
 14—fair. 28 }
 15—Sund. sprink. of rain; Boston, a 29 } Sund.
 fine shower. 30—cloudy, rain. Full Moon.

Depth of rain fallen in June, taken in inches and 100th parts of an inch.

	Inches.	100ths.
Warwick, - - - -	2	00
Townsend, - - - -	1	15

The rains, many of them, this month have not been more than a dew. That which fell on the 30th, at Warwick, *one inch*, was at Townsend but *one fourth of an inch*. The rain, however, at night was continuing.

* Warwick (Maff.) is situated on the north line of the state, seven miles east of Connecticut River.

† The same day, at Warwick, the range of the mercury, in the thermometer, at one o'clock P. M. was 91½°, but a cloud coming over with a sprinkling of rain, the mercury at two o'clock had descended to 76°.

The depth of rain in *May*, as transmitted to us by "*A Smithfield Subscriber*," was *one inch and three-tenths of an inch*. We solicit our correspondent for a continuance of his observations. Those for *May* were received too late for publication in our last number. His observations for *June* had not been received at the time this article went to the press. Our correspondents, engaged in making meteorological and other observations, will be so good as to notice, that it is necessary their observations should be received at least *eight days previous to the day of our publication*.

Smithfield, in the state of Rhode Island, is 30 miles S. W. by S. from Boston. Rose bugs made their appearance in this place on the 14th of June, but not in such multitudes as they have done for several years past. From the same source we learn, that the canker rash has been very prevalent and mortal among children in Providence.

Warwick, June, 1806.

The 1st of this month apple blossoms had fallen from the trees, and the fruit completely formed: 7th, remarkably dry, and the most of our garden vegetables destroyed by insects; small black flies have been particularly noticed: 9th, blossoms appeared on winter rye and red clover: 21st, we experienced an extraordinary high wind from the south-west, which had an uncommon effect upon the fruit trees, plants, &c. leaving the appearance of a hard frost, or scorch of fire. Winter rye, on high ground, has suffered some from the drought, but in general has a promising appearance. The prospect of fruit is small. Grass very small and thin. People generally engaged in haying on the 30th.

The month has been very healthy.

W. COBB, JUN.

NOTE.

The uncommon effect of the wind of the 21st, as noticed by our correspondent, has been remarked by others, in different places. At Townsend the wind, for a time, was thought to be equally strong as in the memorable north-east storm of the 9th of October, 1804, although the day was fair, excepting some flying clouds. The effect of the wind on fruit trees, in this place, was noticed to be such as above described: leaving on the leaves of these trees the appearance of their having been scorched by fire. This appearance was thought to be more distinctly marked on the *windward side* of the trees, and hence was supposed to be an effect or some way consequent on the wind. This appearance was first noticed on the morning of the succeeding day.

Melancholy Effects of Lightning.

The following is an extract of a letter from the Rev. EBENEZER HILL, to the Editor, dated Mason, June 11, 1806.

"On Sabbath day, first instant, the house of Mr. Joel Kendall, of Dublin, was struck by lightning, about five o'clock P. M. It seems the lightning first struck the chimney, and proceeded down the two middle pair of principals, which were much shattered. From the plates, its course was down the middle posts. Mr. Joel Kendall and his brother Benjamin Kendall of Mason, were sitting *near a post*, down which the greatest quantity of the fluid it seems passed, as this post was the most shivered of any. Mrs. Kendall, and her eldest son, about 17 years of age, were standing in an adjoining room, or back kitchen, near a sink, and nearly in the direction between a door communicating with the room in which were the two Mr. Kendalls, and an outer door; at this door the lightning passed out, and entered the ground a few feet distant from the house. Mrs. Kendall and her son instantly fell. Mrs. Kendall recovered very soon, and attempted to raise her son, but alas, he could rise no more! She then passed into the next room, and there were extended on the floor her husband and her brother, lifeless corpses. There were five or six children in the house, and none of them injured. The house was set on fire, but discovered by the neighbors, and by their timely assistance the fire was extinguished." [See page 101.]

Deerfield, June 30, 1806.

Progress of vegetation, &c.—Apple trees were observed to have their fruit formed the 4th. Our people began to mow the 15th. The crops of grass, in general, are rather light, owing probably to the early drought this season. The crops of rye are promising; but wheat does not appear so well, though there are some fine crops: I do not hear of much damage from the fly. Indian corn perhaps never appeared better. Our kitchen gardens are not so productive as usual: it is a general complaint that seeds failed; and many people were disappointed after a second and third sowing.

State of health, &c.—The month has been very healthy; we have no epidemic diseases, nor do I hear of any in the neighboring towns.

Storms, &c.—At Hadley, on Connecticut River, 14 miles south of this town, on the 1st of June, there was a violent storm of hail and rain, attended with lightning and thunder: the hail was very large, and being driven horizontally by a violent wind; most of the glass on the windward side of the houses was broken: crops on the ground suffered severely. This storm was not very extensive; it seems to have spent its

greatest force on Hadley. It was observed to pass to the south of Deerfield, but it had no uncommon appearance. More particulars of this storm have been published in the newspapers. The 8th, a thunder storm, attended with hail, passed over Northfield, 14 miles north of us, which did considerable damage to their crops. The same day a hail storm passed over the town of Amherst, (lying east of Hadley,) which did considerable damage to the glass windows and crops. The 21st we had a strong wind from the south-west and west, which turned up trees with their roots: some cattle were killed in the pastures. It is remarked, that our most violent winds blow from the south-west quarter: according to my recollection, all those which have done any material damage, have come from this point.

I do not know that any particulars of the late extraordinary eclipse will be of use for your Register; but as you request information on every thing falling under my observation, which I shall think worthy of being recorded, I will take the liberty to present the following, for your disposal.

The day (June 16) was uncommonly clear, scarcely a cloud to be seen. Some time before the eclipse became total, the planet Venus appeared south-westerly of the sun. During total darkness the following stars were seen, viz. Aldebaran, or the Bull's Eye, about 9° south-west of the sun; several in the constellation of Orion, viz. those in the right and left shoulder, and the three in the belt. Sirius was conspicuous about 46° south-east from the sun. The north pole star, and several others of the same magnitude, were distinctly seen. The planets Mercury and Mars were visible, west of the sun, a little more north than Venus, and between the sun and that planet. The air changed very suddenly: the mercury in the thermometer fell to 59° : immediately after the eclipse it rose to 72° , in the shade. Many people put on additional clothing. It was observed, by those who were mowing, that the grass became wet with dew; this was so copious as to stand in small drops upon the leaves. Fowls retired to the roost; the night-hawk skimmed along the ground, as at the approach of night; and the whippoorwill gave us his solitary song. The darkness was so great, that it was necessary to light candles to read common printing.

During the continuance of total darkness, all was silence; an universal gloom sat upon the face of nature, and the gazing crowds were impressed with awe. The sun's rays shot out from behind the dark body of the moon; this radiated her margin in a most beautiful manner. In the middle of the eclipse the north and south points of the horizon appeared like the morning twilight, but in the east and west this twi-

light could not be seen, owing to the propinquity of our mountains. When the moon left the west limb of the sun the darkness disappeared instantaneously, as it does on bringing a lighted candle suddenly into a dark room, and the refulgent "orb of day" soon threw off the gloomy though pleasing sadness in which we had been enveloped.

The duration of total darkness, as nearly as we could determine by clocks and watches, was $4\frac{1}{2}$ minutes; at Albany, Mr. De Witt made it 4 minutes 51 seconds. All the observations of which I have received any account, make the duration nearly double to that given by calculation.

Query.—Was not the diameter of the dark shadow greater than was supposed by the calculators?

By a mean of four observations on the total eclipse of the moon Jan. 15, 1805, I had fixed the longitude of this place at $72^{\circ} 33' 15''$ west of Greenwich. It was my design to have made such observations, on the late eclipse of the sun, as would have enabled me to verify the longitude, or to determine it more accurately; but I was prevented from adjusting a clock previous to the eclipse, and therefore did not get the necessary data.

The latitude of Deerfield, as ascertained by a mean of several observations on the sun and stars, is $42^{\circ} 26' 13''$ north.

E. HOYT.

N O T E S.

"*OBSERVATIONS on the late Eclipse*," made at Groton, have been received, but from a circumstance known to the writer, too late for this number; they will appear in our next.

"*Medical Extracts*," Nos. 1 and 2, have also been received. Our correspondent will excuse us in retaining them on our files while dispensing with some *original*, and other more *temporary* matter.

SOME other communications, which it would be useless to particularize,

have also been received, and may expect our early attention next month.

Our Friends in Connecticut.

ANY communications from our agricultural or medical friends in Connecticut, whose local situation may render it inconvenient for them to correspond with us *directly*, at Boston, they will please to take notice, would be very thankfully received through the hands of Messrs. *Lincoln & Gleason*, of Hartford, or Messrs. *Increase Cooke & Co.* of New Haven.

CONDITIONS OF THE REGISTER.

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THE

Medical and Agricultural Register.

VOL. I.]

AUGUST, 1806.

[No. 8.]

M E D I C A L.

Resuscitation of Life.

THE resuscitation of life is a subject deeply interesting to humanity, instances of which, though rare in *any one neighborhood*, yet are *numerous on record*, and sufficiently justify the most *active* measures, in all cases of *apparent death*, without *apparent cause*, so long as there shall be wanting *the certain and unequivocal evidences* of dissolution. This the *medical man* knows, but all people may not know it; and in cases, where rays of hope may have been seen gleaming through the gloom, it is not improbable but the physician, whose *reputation* is his *life*, may have been compelled to desist from measures of the most benevolent intention, lest—he should be “*laughed to scorn!*”

The case now to be related strongly illustrates the propriety of these observations; and it is hoped such *well authenticated facts*, in all cases where there exists even *the shadow of a possibility* of remaining life, will teach people to be cautious in committing their friends too hastily to the dark and silent grave.

A remarkable Account of the Resuscitation of Life, in the Case of the Rev. WILLIAM TENNENT, of Freehold, New Jersey; communicated by the Rev. SAMUEL AUSTIN, of Worcester, with a Letter to the Editor, dated June 17, 1806.

Extract from the Rev. Mr. AUSTIN's Letter.

“THE account which I mentioned to you, respecting Mr. TENNENT, has just been published in the Assembly's Magazine.

It corresponds with that given in my letters from Mr. BOUDINOT. The Magazines were sent to me by him; and as the publication appears under the patronage of the most respectable body of clergy in the United States, the account, as here presented, may be depended on as authentic.

"I wish you would transfer this account into the Register, and that some accurate theorist in the philosophy of animal nature would give us an exposition of this remarkable phenomenon. We have heard of many persons resuscitated after lying a considerable time apparently dead; but have we in such a form and in such a kind of restoration; especially, with *such an erasure and recovery of mental impressions*? Can these phenomena be reconciled to the system of materialism?"

The Account.

"The late Rev. WILLIAM TENNENT, of Frechold, in the county of Monmouth, in the state of New Jersey, of whom is the following account, was the second son of the Rev. William Tennent, minister of the gospel at Neshaminy, in Bucks county, Pennsylvania. After a regular course of study in theology, Mr. Tennent was preparing for his examination by the presbytery, as a candidate for the gospel ministry. His intense application affected his health, and brought on a pain in his breast, and a slight hectic. He soon became emaciated, and at length was like a living skeleton. His life was now threatened. He was attended by a physician, a young gentleman, who was attached to him by the strictest and warmest friendship. He grew worse and worse, till little hope of life was left. In this situation, his spirits failed, and he began to entertain doubts of his final happiness. He was conversing one morning with his brother, in Latin, on the state of his soul, when he fainted and died away. After the usual time, he was laid out on a board, according to the common practice of the country; and the neighborhood were invited to attend his funeral on the next day.

"In the evening his physician and friend returned from a ride into the country, and was afflicted beyond measure at the news of his death. He could not be persuaded it was certain; and on being told that one of the persons who had assisted in laying out the body thought he had observed a little tremor of the flesh, under the arm, although the body was cold and stiff, he endeavored to ascertain the fact. He first put his hand into warm water, to make it as sensible as possible, and then felt under the arm, and at the heart, and affirmed he felt an unusual warmth, though no one else could. He had the body restored

to a warm bed; and insisted that the people, who had been invited to the funeral, should be requested not to attend. To this the brother (in whose house he then was) objected as absurd, the eyes being sunk, the lips discolored, and the whole body cold and stiff: however, the doctor finally prevailed; and all probable means were used, to discover symptoms of returning life. But the third day arrived, and no hopes were entertained of success, but by the doctor, who never left him night nor day. The people were again invited, and assembled to attend the funeral. The doctor still objected; and at last confined his request for delay to *one* hour, then to *half* an hour, and finally to *a quarter* of an hour. He had discovered that the tongue was much swollen, and threatened to crack: he was endeavoring to soften it by some emollient ointment, put upon it with a feather, when the brother came in, about the expiration of the last period, and mistaking what the doctor was doing, for an attempt to feed him, manifested some resentment, and in a spirited tone said, 'It is shameful to be feeding a lifeless corpse;' and insisted with earnestness, that the funeral should immediately proceed. At this critical and important moment, the body, to the great alarm and astonishment of all present, opened its eyes, gave a dreadful groan, and sunk again into apparent death. This put an end to all thoughts of burying him, and every effort was again employed, in hopes of bringing about a speedy resuscitation. In about an hour the eyes again opened, a heavy groan proceeded from the body, and again all appearance of animation vanished. In another hour, life seemed to return with more power, and a complete revival took place, to the great joy of the family and friends, and to the no small astonishment and conviction of very many *who had been* ~~in~~ *CULING the idea* of restoring to life a dead body.

"Mr. Tennent continued in so weak and low a state for six weeks, that great doubts were entertained of his final recovery; however, after that period he recovered much faster, but it was about twelve weeks before he was completely restored. After he was able to walk the room, and to take notice of what passed around him, on a Sunday afternoon, his sister, who had staid from church to attend him, was reading in the Bible, when he took notice of it, and asked her what she had in her hand. She answered, that she was reading the Bible. He replied, 'What is the Bible? I know not what you mean.' This affected the sister so much that she burst into tears, and informed him that he was once well acquainted with it. On her reporting this to her brother, when he returned, Mr. Tennent was

found, upon examination, to be *totally ignorant of every transaction of his life* previous to his sickness. He could not read a single word, neither did he seem to have any idea of what it meant. As soon as he became capable of attention, he was taught to read and write, as children are usually taught, and afterwards began to learn the Latin language under the tuition of his brother. One day as he was reciting a lesson in Cornelius Nepos, he suddenly started, clapped his hand to his head, as if something had hurt him, and made a pause. His brother asked him what was the matter: he said that he felt a sudden shock in his head, and it now seemed to him as if he had read that book before. By degrees his recollection was restored, and he could speak the Latin as fluently as before his sickness. His memory so completely revived, that he gained a perfect knowledge of the past transactions of his life, as if no difficulty had previously occurred.* This event, at the time, made considerable noise, and furnished a subject of deep investigation and learned inquiry to the real philosopher and curious anatomist.

"The candid reader is left to his own reflections on this interesting subject. The facts have been stated, and they are unquestionable.

"As soon as circumstances would permit, Mr. Tennent was licensed, and began to preach the everlasting gospel with great zeal and success. The death of his brother, who had been some time settled as minister of the Presbyterian church at Freehold, in the county of Monmouth, New Jersey, left that congregation in a destitute state. They had experienced so much spiritual benefit from the indefatigable labors and pious zeal of this able minister of Jesus Christ, that they soon turned their attention to his brother, who was received on trial, and after one year was found to be no unworthy successor of so excellent a predecessor. In October, 1733, Mr. Tennent was regularly ordained their pastor, and continued so through the whole of a pretty long life, one of the best proofs of ministerial fidelity."

* In a letter from the successor of Mr. Tennent, in the pastoral charge of his church, to the author of this account, dated Monmouth, New Jersey, December 10, 1805, we find the following paragraph.

"Mr. Tennent informed me, that he had so entirely lost the recollection of his past life, and the benefit of his former studies, that he could neither understand what was spoken to him, nor write nor read his own name. That he had to begin all anew, and did not recollect that he had ever read before, until he had again learned his letters, and was able to pronounce the monosyllables, such as *thee* and *thou*; but that as his strength returned, which was very slowly, his memory also returned."

AGRICULTURAL.

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For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

I KNOW not but that the following hints may be thought too stale and barren for an insertion in your useful Register, but I have found a great advantage from pursuing this method, for these three years past. Yours,

J. W. JOHNSON.

*The Loss sustained by Farmers in suffering their Swine to run at large.*

The common practice of suffering swine to run at large, during the summer months, is highly injudicious; for, without advertg to the damage which not unfrequently arises to the farmer by these means, I shall just notice *the total loss of a large quantity of very excellent manure*, which may be easily made and preserved, by adopting the following plan.

Let a pen or yard be made, of sufficient dimensions to contain the number of swine with convenience: it ought to be a little concave, with a large shallow trough sunk in one corner for water; a shady place is to be preferred, or a slight shed may be put up, for a retreat in very warm weather.

It now remains for the farmer, after having shut in his hogs, to cut up and throw in all kinds of weeds, which are too often suffered to grow to maturity round the borders of his inclosures; mud from the bottom of ponds, and scrapings from the yard, the haulm of peas, beans and potatoes, fern or brakes, and to those whose local situation will admit of it, eel grass and rock weed will be excellent ingredients; these, with many other vegetable substances, may be put in at times when the farmer cannot be better employed: a little quick-lime, occasionally sprinkled upon the mass, will greatly favor the decomposition.

If this or a similar mode was pursued, and the manure so made properly applied, it would tend in a great measure to stop the complaints which are frequently made of flur crops, thin grass, worms, drought,\* &c.

I am aware that objections may be made to the foregoing observations, by those who are accustomed to turn out their swine

\* It is generally understood that the dung of swine resist the ill effects of drought.

to pick up a subsistence from the fruit of the oak, beech, and other nut trees. But when it is considered, that this sustenance (however nutritious it may be) is of short duration, *no prudent farmer* will forego the *real* advantages of occlusion, for the trifling benefit of having his hogs kept at free cost for a few weeks. I do not think that any new ideas are here developed, but my only object is, to remind farmers how much of this invaluable article may be made with a little care and attention.

N. B. Our correspondents who favor us with their names, would oblige us likewise, if agreeable to them, by giving us the *towns* in which they live.

### *Remarks.*

The attention of the farmer is here called to a subject, where we believe it may be very profitably directed. Manure is the great *sinew* of agriculture, as money is of war; and the making the *best* of every advantage or opportunity for increasing the quantity of it, is one of the most *prominent traits* in the character of a *good farmer*.

Previous to receiving the foregoing communication, we had on our files the following article, on the properties of this kind of manure, selected for the Register, which, as it presents different views of the same subject, we give a place here.

### *Manure from Swine—how to increase the Quantity.*

[From the New England Farmer.]

The dung of swine is a very rich and fat manure, and so cold as to ferment very slowly. It is so rich and oily as to be double in value to neat's dung. It will render the most dry and hungry soils exceedingly fruitful in a wet season, as I have found by experience. It resists the ill effects of drought, and does most service in a hot country. By its steady and gradual supply of a rich nourishment, it is peculiarly adapted for the growing of hops, pumpkins, running beans, and every plant which has long vines. Nothing can equal it for the growing of potatoes: it has produced me more than a peck in a hill on the poorest hungry sands; or rather, I might say, *straw only a little impregnated with the dung of hogs* has done it. This is so strong a manure, that it answers well when *mixed with a large proportion of earth, weeds, straw, or other bibulous substances*. It is almost incredible how great a quantity of good manure may be obtained, by *supplying a hog-fly with rubbish* to mix with the dung. I have heard of *forty loads* of manure being made in a year, by means of one hog-fly, and I have no doubt of its being practicable.

*Experiment, showing the Importance of selecting the first ripe Seeds, communicated to the Trustees of the Massachusetts Agricultural Society by JAMES FREEMAN, September 1, 1805, and published by them in 1806.*

To ascertain whether the ripening of seeds can be forwarded, by sowing those which are the earliest ripe, I have made experiments, all of which have been successful, on several different sorts. It will be sufficient to mention one only.

In the year 1801, I planted the case-knife bean. The pods first formed, which are commonly those nearest the root, were reserved; and when about the quantity of a peck was fully ripe, they were gathered on the same day. The largest and fairest of the seeds were planted the next year, and the first formed pods reserved as before. The same method has been pursued without any variation, till the present year: by means of which, whilst the bean has not degenerated in its quality, the ripening of the seeds has been forwarded twenty-six days; as will appear from the following

TABLE.

| Planted.      | Gathered. | No. days. |
|---------------|-----------|-----------|
| 1801, May 20, | Sept. 9,  | 112       |
| 1802, May 11, | Aug. 21,  | 102       |
| 1803, May 10, | Aug. 8,   | 90        |
| 1804, May 8,  | Aug. 4,   | 88        |
| 1806, May 6,  | July 31,  | 86        |

The first column denotes the time of planting the seeds; the second, that of gathering the seeds which were first ripe; and the third, the number of days which elapsed between the time of planting and the time of gathering.

As in the second and following years I anticipated the time of planting the seeds, (by which means fourteen days have been gained, in addition to the twenty-six noted above) to determine what effect later planting would produce, by giving the seeds more advantage from the heat of summer, in the years 1804 and 1805 I put into the ground a quantity of seed, about a week later than that which was first planted; the event which took place is exhibited in the following

TABLE.

| Planted.      | Gathered. | No. days. |
|---------------|-----------|-----------|
| 1804, May 14, | Aug. 8,   | 86        |
| 1805, May 13, | Aug. 6,   | 85        |

As very little time has been gained in the present and in the preceding year, I suppose I have now reached, or nearly reached, the *ne plus ultra*; I delay not, therefore, to communicate to the trustees of the Agricultural Society, the result of an experiment,



which confirms the important truth, taught in various parts of their useful publications, *That, to ensure an early and good crop, the seeds reserved for future sowing should be those which are the first ripe, and which are in other respects the most perfect.*

---

*Cider Press on a new Construction, by Mr. PAUL DODGE, of New Castle, (Maine.)*

AN account of this press was communicated to the president of the Massachusetts Agricultural Society, by Mr. Dodge, early the present year, and has since been published with other "*Papers*," by the trustees of the Society. This account was also accompanied with a *pattern of the press*, which is now lodged in the secretary's office, at the new state house, for the inspection of all those who may have the curiosity to see it.

The advantages proposed to be gained by the use of this press are, a saving of labor, greater expedition in the work, and no occasion for the use of water or straw, which undoubtedly are an injury to the cider.

Mr. Dodge has not given us the *expense* of this press, which so far may be considered a defect in his account; the construction of it, however, is simple, and the expense light, as any one must be persuaded by an inspection of the pattern lodged at the state house. The following is Mr. Dodge's account of the use of this press, and his method of making cider, as published by the Massachusetts Agricultural Society.

*A new, clean, and easy Method to make Cider.*

The apples, after being ground, are put into a curb or vat, and levelled with a shovel; then covered with a plank, and blocked up as usual. It may be pressed with a long beam or short cider screw, but hay screws are best. The cider may be pressed in two hours. Two men and a boy may make twenty barrels in one day. As no straw is used, it may be made in cold weather, if the pumice does not freeze.

The girts must be four feet eight inches inside, four inches and an half square, made of the best of timber, with hinges and bolts in proportion; the flats three feet three inches long, one inch and a quarter thick, three inches wide, and half an inch apart. The eye bolts may be drawn with an iron bar with ease, and any quarter of the vat taken off, to take out the pumice. A curb of this size will hold pumice enough to make ten barrels of cider. I have made cider in this new way two years, and find it is done with half the usual labor, and the cider clear. The above can be attested by many.

PAUL DODGE.

*New Castle December 3, 1805.*

DR. ADAMS,

FINDING by experience that the following receipt for pickling is a great improvement, I thought to communicate it for the Register, if acceptable.

*Receipt for Pickling.*

After cleansing your cask, put first a layer of white oak leaves, and then a layer of cucumbers, or whatever your pickles consist of, and so on to fill your cask; intersperse between each layer dill seed, mustard seed, horse-raddish, &c. and to every twenty cucumbers one bell of pepper. Form a composition of clear salt and water, not hardly sufficiently strong to bear an egg, to every gallon add one quart of good vinegar; scald and skim this pickle, and after cool to a degree of blood warmth, add it to your cask, and cover it tight.

If rightly performed, this method will preserve pickles the year round, and forms a very agreeable sauce.

*For the MEDICAL AND AGRICULTURAL REGISTER.*

IN cold moist land, and in cold wet seasons, when Indian corn is often so chilled or soaked in the ground as never to vegetate, is it best to cover it deep or shallow? to plant it in a deep furrow, or on a high ridge, made by turning two furrows together? and what kind of manuring, in such cases, is best? If any experienced farmer will communicate his remarks on these queries, through the medium of the Register, he will receive the thanks of at least one

NOVICE IN THE ART.

*Warren, (Maine,) June 24, 1806.*

*To prevent Wheat Rust.*

MR. ISAAC YOUNG, of Georgia, mixed rye amongst his feed wheat, and thus escaped the blast of his wheat. It was repeatedly tried till he was convinced of its efficacy: and then he sowed five acres with wheat, surrounded with a list of twenty five feet breadth of rye; and this also succeeded; and being repeated, it is found a certain security to the wheat.

*Bord. Huf.*

## MISCELLANEOUS ARTICLES.

## ARTICLE XXI.

*For the MEDICAL AND AGRICULTURAL REGISTER.**Observations on the late Eclipse.*

You who delight to canvass nature's laws,  
 And trace effects to God, the great first cause,  
 Come, view his works amongst the rolling spheres,  
 Whose constant motions mark days, months, and years.

A TOTAL eclipse of the Sun is so rare a phenomenon, that but few generations have an opportunity of seeing that sublime spectacle. Though one happens once in a very few years, to some part of the earth, yet it is uncommon for two to happen at the same place without the lapse of several centuries between. To those who never have an opportunity of beholding so grand a scene, a description must be interesting, though language can give but a faint one. To astronomers accurate and minute observations are essentially serviceable, in affording materials for future calculations,

In no science has human sagacity been more successful in its researches, than in astronomy. To have a knowledge of the motions, magnitudes, and distances of the celestial bodies, sufficient to predict, for a thousand years hence, to a few seconds, the conjunctions and occultations of not only the Sun and Moon, but of the satellites of Jupiter, which are far beyond the ken of the strongest eye sight, when unassisted by optical instruments, discovers at once what success attends persevering industry, and to what perfection human nature can arrive. And still we are not to suppose, that astronomical inquiries have reached the bounds, which they cannot pass. The science is daily enriched with new discoveries.

The late total eclipse of the Sun, besides affording a most pleasing and august sight to every beholder, and a source of wonder and contemplation to every thinking being, served to confirm the former calculations of astronomers, and make corrections for future ones. The near agreement of computation with observation, shows that our present tables are nearly accurate.

By computation for the town of Groton, in latitude  $42^{\circ} 35\frac{1}{2}'$  north, longitude  $71^{\circ} 26'$  west, from Greenwich, the following is the result from Mayer's and Mason's tables, for Ferguson's would not make it total at this place:—

|                                    | <i>hr. m. s.</i> |                                     |
|------------------------------------|------------------|-------------------------------------|
| Beginning of the eclipse, June 16, | 10 5 40          | } Clock time.<br>Central at Groton. |
| Beginning of total darkness,       | 11 24 30         |                                     |
| End of total darkness,             | 11 27 30         |                                     |
| End of the eclipse,                | 12 52 00         |                                     |
| Duration of total darkness,        | 3 00             |                                     |
| Duration of the eclipse,           | 2 46 30          |                                     |

By observations made at this place with an acromatic telescope, which magnifies twenty-six times in lineal dimensions, it happened as follows:—

|                              | <i>hr. m. s.</i> |               |
|------------------------------|------------------|---------------|
| Beginning of the eclipse,    | 10 3 30          | } Clock time. |
| Beginning of total darkness, | 11 22 00         |               |
| End of total darkness,       | 11 27 00         |               |
| End of the eclipse,          | 12 47 00         |               |
| Duration of total darkness,  | 5 00             |               |
| Duration of the eclipse,     | 2 43 30          |               |

The time was taken by a well regulated clock, compared with a meridian line the day before, and on the same day of the eclipse; but, owing to several inconveniencies, there may perhaps be an error of ten seconds in some of the times, as above stated. The computations were, therefore, as near as could be expected, except in the time of total darkness, in which the earth's motion on its axis, a very material circumstance, was not considered.

The centre of the Moon's shadow, in this eclipse, first touched our globe in the Pacific Ocean, latitude  $24^{\circ}$  north, longitude  $138^{\circ}$  west, it being there sunrise. It traversed the earth in a curvilinear direction, bending northerly of east, and passing our longitude between latitude  $41^{\circ} 40'$  and  $43^{\circ} 28'$ , till it arrived off the southern shores of Nova Scotia, where it was noon. Then inclining southerly of east, it left the earth in the interior of Africa, latitude  $12^{\circ}$  north, longitude  $12^{\circ}$  east, it there being sunset. The dark shadow was about 118 statute miles in diameter, but covered very different portions of the earth's surface, according to its angle of inclination. At this place it covered a space 125 miles in diameter. The absolute time of its passing over the earth was three hours eleven minutes, moving at the rate of 38 miles per minute on the plane of the horizon. Computing from this, at the place where the eclipse was total and central at noon, the duration of total darkness would be but three minutes; but the place so situated was also moving eastward 13 miles per minute, which prolonged the duration to five minutes, which exactly agrees with the observations made at this place. Our motion was not materially different from the place where it was total on the meridian. At Boston the total darkness was shorter in duration than here, because it was not so near the centre of the shadow.

The sky was unusually clear and serene; not a cloud appeared in the hemisphere; the leaves scarcely waved by the wind.

The thermometer, which, in a very cool position at the commencement of the eclipse, stood at 66, when the Sun was about half obscured began to fall; the light was perceptibly diminished, Venus appeared, and a gloom began to spread over the face of nature.

When the Sun was nine or ten digits obscured, honey bees were observed to be fast gathering to the hives; the gloom greatly increased; a chilly dampness came on; the Moon's dark shadow was plainly seen approaching in the west, having the appearance of a dark thunder cloud, undefined at the edges. Just as the Sun was wholly obscured, the bees were still in their hives; doves rapidly flew to their windows, dodging as if pursued by a hawk; birds sung their evening songs; tame fowls roosted under the first shelter they found; horses and cattle discovered their consternation, by ceasing to feed and looking round with a wild stare. And what must have been the astonishment of the uninstructed savages, on our western coast and in Africa, when they beheld the great source of light and warmth, perhaps the only god they worshipped, hiding his face, and leaving them, for aught they knew, in everlasting night! The whole of animated nature was concerned in the scene, but enlightened man alone could view with composure, and adore its great Author.

When the Sun was entirely hidden, white streams darted from all sides around the moon, terminating in points at the distance of several degrees, not spreading equably in every part, but in pencils or spears, some larger and brighter than others, very much resembling an aurora borealis. The edge of the Moon jagged, appearing like a far distant mountainous horizon; and the eastern part was variously tinged with reddish light, which soon disappeared, the deepest notches or vallies retaining it the longest. The same phenomenon was exhibited on the western edge, previous to the Sun's emerging. This had much the appearance of a well defined edge of a very dense cloud, behind which the Sun has just fallen; and was supposed to be parts of the Moon, on which the Sun shined, visible through the deep vallies, or refractions of light through the Moon's atmosphere. Six or seven of these vallies were deeper and longer perceptible than the rest. The quantity of darkness cannot be well compared, as it was very different from that of night, being excessively gloomy. A familiar countenance could not be known but a few feet distant.

Besides the planets Mars, Venus, and Mercury, many of the fixed stars appeared, among which were Sirius, Procyon, several in Orion and in Ursa Major. Seventeen were enumerated, and many more were undoubtedly visible. The thermometer fell

to 60°. The dew on the grass was sufficient to wet the shoes, by walking through it.

The departing light was easily endured by the naked eye ; but during the total darkness the pupil was so much dilated, that the first appearance of the Sun was insufferably bright. The cocks immediately gave the returning light the usual salute. All nature seemed instantly reanimated. The scene surely bore no faint resemblance to that, when first the Almighty said, "Let there be light : and there was light."

The inverted images of the Sun in the shades of trees were noticed in many places, though not in this. A friend, who was a few miles north of the dark shadow, not having so many things to arrest his notice, paid particular attention to this beautiful phenomenon. He observes, that the innumerable images of the Sun, showing the exact state of the eclipse, in all its stages, in an inverted position, afforded a pattern too superlatively beautiful for any painter on earth to imitate. Any person may satisfy himself that this would be the case, in such a partial light, by letting the sun shine into a room through a small hole, whether round or not, and an inverted image will be formed.

It is said, that at some places congealed mist was observed, floating in the air. Something similar was here seen, at a very great height ; but it was supposed to be the cotton like substance which attaches to the seeds of certain trees and plants.

Whether the Moon have an atmosphere, is a question, which, it seems, is yet undetermined. An opportunity for speculations on the subject was offered in this eclipse. The opinion and reasonings of astronomers on the subject would be highly gratifying to the writer, and probably to the public at large.

*Result of Meteorological and other Observations, for July, 1806 ; made at DEERFIELD, WARWICK, MASON, PORTSMOUTH, SMITHFIELD, (R. I.) and BOSTON :—For the Medical and Agricultural Register.*

| July, 1806. | Mean dgs.<br>at sun-rise. | Mean dgs.<br>at 2 P. M. | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births. | Deaths. |
|-------------|---------------------------|-------------------------|------------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|---------|
| Deerfield   | 60 $\frac{1}{2}$          | 80 $\frac{1}{2}$        | 69                           | 15, 26 ds. 91°                 | 5th day 46°                 | S. & S. W.           |            |         | 2       |
| Warwick     | 57 $\frac{1}{2}$          | 80                      | 68 $\frac{1}{2}$             | 17 95                          | 6 52                        | N. W. & S. W.        |            |         |         |
| Mason       | 64                        | 74                      | 69                           | 26 83                          | 31 58                       | W. & N. W.           |            |         |         |
| Portsmouth  | 63 $\frac{1}{2}$          | 75 $\frac{1}{2}$        | 69 $\frac{1}{2}$             | 26 88                          | 31 54                       | E. & N. E.           |            |         |         |
| Smithfield  | 63 $\frac{1}{2}$          | 76 $\frac{1}{2}$        | 68 $\frac{1}{2}$             | 10, 28 87                      | 14 54                       | N. & N. W.           |            |         |         |
| Boston      | 62 $\frac{1}{2}$          | 77                      | 69                           | 26 93                          | 31 55                       | E. & N. E.           |            |         |         |

## WEATHER.

- |                                                                                                                       |                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 1 <sup>st</sup> day, foggy, cloudy; a little rain;<br><i>Smithf.</i> 0,3 in. <i>Portf.</i> fine rain in<br>the night. | 17—clouds and sunshine, some places<br>showers.                                                                         |
| 2—cloudy, fair 10 P. M. wind N.W.                                                                                     | 18—appearances of rain; <i>Smithfield</i> ,<br>shower, 0,3 inch.                                                        |
| 3 } fair, rather <i>Warw.</i> rainy morn-                                                                             | 19—rain; <i>Warw.</i> 3 inches, very little<br>or none in many other places.                                            |
| 4 } cool, fine ing, 2 inches, fair                                                                                    | 20 } <i>Sund.</i> fair, showers, thunder and                                                                            |
| 5 } hay weather. afternoon.                                                                                           | 21 } lightning in some places.                                                                                          |
| 6 } <i>Sund.</i> brisk winds.                                                                                         | 22—cloudy, rain; <i>Moon's last quarter</i> .<br><i>Warw.</i> 0,5 inch. <i>Smithf.</i> 0,4 inch.                        |
| 7—foggy, cloudy; little rain, fair.                                                                                   | 23 } fair, a fine season,                                                                                               |
| 8 } fair, small <i>Moon's last quarter</i> .                                                                          | 24 } flying clouds,                                                                                                     |
| 9 } showers, with thunder and light.                                                                                  | 25 } brisk winds, light showers                                                                                         |
| 10 } in some places; <i>Smithf.</i> 0,5 in.                                                                           | 26 } in some places.                                                                                                    |
| <i>Portf.</i> fine rain most of the 10th;<br><i>Mason</i> , a thunder storm, with hail.                               | 27— <i>Sund.</i> cloudy, rain; <i>Warw.</i> 3 in.<br>very little in many other places;<br><i>Smithfield</i> , 0,2 inch. |
| 11—cloudy, some places rain, <i>Warw.</i><br>0,25 inch; fair afternoon.                                               | 28 } changeable weather; fair, cloudy.                                                                                  |
| 12—cloudy, fair.                                                                                                      | 29 } and light showers each day;                                                                                        |
| 13 } <i>Sund.</i> fair,                                                                                               | 30 } <i>Deerf. &amp; Warw.</i> rain <i>Full Moon</i> .                                                                  |
| 14 } cool for                                                                                                         | 31 } more copious.                                                                                                      |
| 15 } the <i>Portf.</i> fine shower. <i>New Moon</i> .                                                                 |                                                                                                                         |
| 16 } season.                                                                                                          |                                                                                                                         |

Depth of water fallen in rain—Warwick 10,75 inch. Smithfield 2,40 inch.

*Mason, July, 1806.*

On Thursday, 10th instant, we experienced, in the westerly part of this town, a very distressing and terrible hail storm. A little before night a cloud was seen gathering in the north; it soon became very black, and appeared in great commotion; its approach was with rapidity, and just after sunset we began to feel its dire effects. The discharge of hail and rain, accompanied with tremendous wind, was beyond what was perhaps ever known in this place before. The direction of the cloud was from north about due south, and its centre about on the line between this town and New Ipswich. We learn that it begun in Greenfield, and did much damage in that town, in Peterborough, and Temple. With us the hail did not extend much over a mile in width, to do material injury, nor in a south direction but little way into Ashby: but within its extent the destruction is almost entire. English grain is beaten down, and straws broken off. Indian corn not only torn, but in some places the stalks broken and bruised off, and carried away. Grass is laid flat to the ground, and much of it cut off by the hail; and in places where the water formed a current, is buried under the earth and rubbish. All kinds of garden fauce are cut to the ground. Apple trees are very much bruised, as is what fruit remains on the trees. Many, both fruit and forest trees, are torn up. Thus, in a moment, the pleasing expectations of the industrious farmer are entirely cut off. There was no damage done to buildings in this town, except breaking the glass on the windward sides of houses.

(Rev.) E. HILL.

*Warwick, July, 1806.*

This month, previous to the 19th, has been extremely dry, and vegetation seemed to retreat: since that time we have had plentiful rains; the drooping plant receives new vigor, and the whitened hills resume their verdure. Corn has a very promising appearance. Winter rye was ripe about the 25th: the ingathering has been delayed, and the grain some damaged by the rains.—The *state of health* is very favorable. W. C.

*Smithfield,\* July 31, 1806.*

Rivers and brooks very low. Vegetables look tolerably well. Winter rye and wheat have succeeded very well, except on some low lands, where they were damaged by the frost on the 23d of May; but spring grain has been considerably affected by blast. Hay came in considerably short of last year.—A general time of health.

*Deerfield, July 31, 1806.*

*Progress of vegetation, &c.*—Black and red cherries-ripe the 6th of the month. Cucumbers, in most of our gardens, fit for use the 12th. Our people began to reap the 14th: the crops of English grain are excellent: little or no damage from the fly. In this town great benefit is derived from the use of *gypsum*, or plaster of Paris. A farmer here, this season raised thirty bushels of wheat on an acre of ground, on which, in May last, two and an half bushels of plaster were sowed. This was an old field; and without plaster, has heretofore produced but ten bushels of rye per acre; and this was reckoned a good crop for the land. Large tracts of land in this town, which have formerly been esteemed of little value, are, by the use of plaster, now transformed to fertile fields; and the produce from them is nearly equal to our best interval lands. This improvement in agriculture begins to check emigrations to new countries: and many who, from the sterility of their farms, hardly procured subsistence for their families, now find ample supplies, without the laborious task of moving to and clearing up new farms in the western regions.

*State of health, &c.*—The month has been healthy in this and the neighboring towns. The lady whose case was mentioned in my observations for May last, died the 8th of this month. She had resided eleven weeks in the stable; and had become so attached to it, that it was with considerable reluctance she quitted it: this she did only fourteen days before her death. The place in which she resided, was a decent room, fitted up in a building adjoining the dwelling house: a floor was laid over

\* *June.*—From the 20th to the 25th, the small limbs of pear trees, quinces and some apple trees, died. The leaves began to wither firstly at or near the extremities of the limbs, and proceeded gradually towards the trunk. The same kind of trees, in the same neighborhood, were very differently affected; some shewing scarcely any dead leaves, while others have but few live ones.



the cows, in which were openings, to admit the effluvia from below. A small iron stove was kept in the room with the patient, for the purpose of keeping up a proper temperature of air in cool weather: but it was seldom necessary to use the stove, for the air was kept warm by the cows. Although this mode of treatment proved ineffectual, it ought not to prevent further trials; for, if we may believe doctor Beddoes, very extraordinary cures have been effected by it. In the case above mentioned, it is supposed that the life of the patient was lengthened, for when she entered the stable she appeared to be far advanced in the disorder; and it is probable that there existed a predisposition to the disease.—This disease seems not to have completed its ravages in this devoted family.\* The father was taken with it about the 20th of May, and has declined very rapidly: he now appears to be near his end. He will make the fourth death in the family within four years. Another of the family, a son, has lately been attacked with an *hemoptysis*, and continues in a feeble state.—This family have been healthy, till within about four years; were brought up in the healthful employment of agriculture, and were remarkable for their industry and temperance. Four years ago they made some additions and improvements in their dwelling house: the rooms, previous to this, were rather open and cold; they are now close and warm.

*Query.*—Could this alteration be instrumental in exciting the disease into action, admitting the family to be predisposed to it?

\* The name of this family is SHELDON.

E. HOYT.

## N O T E S.

"*OBSERVATIONS and Experiments on the Canker Worm*," are very thankfully received, and will appear in our next number.

was experienced one of the finest showers we have witnessed this season. The 23d also was a wet day.

### THE SEASON.

Very dry, in the vicinity of Boston, previous to the 22d of this instant, when

"—All day long the full-distended clouds  
Indulg'd their genial stores."

Wells and springs of water very low.  
*Boston, August, 1806.*

*Errata.*—The following errata ran through some part of the impression of our last number:—Page 109, line 6, "*goes*," corrected, *went*. Page 111, line 23, "*Alcleberan*," corrected, *Aldebaran*.

### CONDITIONS OF THE REGISTER.

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THE  
*Medical and Agricultural Register.*

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VOL. I.]      SEPTEMBER, 1806.      [No. 9.

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M E D I C A L.

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Answer to the Question, No. II. of the Register—"Why is it that the Ravages of the Consumption are so much greater with the Female Sex than with the Male?"

DR. ADAMS,

I OBSERVED in No. II. of the Register, a question which to me appears important, viz. "Why consumption prevails so much more in the female than in the male sex?" With impatience I have waited to see an answer from some of your correspondents, or from some able theorist and skilful practitioner, who had leisure to benefit mankind by his study and observation; as no answer has appeared, except this brief one, "The greater delicacy of the female than male constitution," I have been induced to attempt an answer, which is submitted to your consideration. I am no physician, therefore it cannot be expected I should write in the professional style; I am however encouraged to communicate my thoughts from this consideration, that the Register is calculated to be a medium of most general information, and intended for the advantage of all classes of people: some of whom would not be benefited so much by a learned dissertation as by a few desultory remarks.

It appears to me that another question in connexion with that proposed is equally important, and in a measure necessary to come to an answer; viz. Whence is it that consumption is so much more prevalent in both sexes now than in the days of our forefathers? That this is fact, I presume will not be denied. Consumptions are not only more frequent according to

the testimony of aged people, but also much more rapid in their progress, than they were in their early days. Must this be charged to change in our climate ? or mode of living, and dress ? or some other cause, or causes ?

According to the ingenious reasonings and observations of Dr. Williams, there has been a regular change of climate, (under certain circumstances) progressing to a greater degree of warmth. But this change must be so gradual and flow as not to affect materially the health of inhabitants in one or two centuries, which includes the age of this country, as settled by Europeans.

If we attend to the mode of living, we shall find a far greater change between that of our hardy ancestors and the present generation, than was ever known in any climate in ten centuries. If they, who now consider ardent spirit, tea, sugar, &c. as among the necessaries of life, will believe the report, our fathers scarcely knew more of them than the name. Instead of the produce of China and the West Indies to compose their breakfast, they were content with the plain and simple produce of their farms. Instead of an ardent draught to raise their spirits, recruit them under fatigue, or create an appetite for dinner, they were supplied with nature's simple beverage, a draught of milk and water, a cup of beer, or even at the most with the produce of their own orchards. A particular object with them was to clothe their bodies so as to guard against the inclemencies of the climate, not aiming so much at ornament as convenience, not apeing (perhaps from a happy necessity) the fashions and follies of older countries. It may not be unworthy of remark, that our hardiest long-lived veterans commonly wore woollen shirts. It is true we appear much more refined in our mode of living and dress. We smile at their uncouth habits, and homely fare ; or perhaps pity their poverty ; since now he must appear poor indeed who cannot have the herb from China, and the juice of the cane every day ; and the vast quantity of distilled spirit which is consumed almost exceeds belief. The mode of living and dress is now as different from what it was in the days of our grandfathers as simplicity and luxury. On which side is the advantage found, as to the state of health ? Consumption was then rarely known ; an instance of it was matter of general conversation, and long remembered : now it has become the most prevalent, as well as formidable disease of our country. We see a great change in the mode of living, and as great in the prevalent diseases. May we not view it in the light of *cause* and *effect* ?

As to the second question, or rather the question which was proposed, Why consumption prevails so much more in the

female than in the male sex? The answer given in No. IV. of the Register, undoubtedly contains a principal reason. It will be readily granted that whatever causes have a tendency to produce consumption, will operate more powerfully upon the delicate female constitution, and all the causes which have been considered as tending to increase this fatal complaint, are causes to which the female sex are, perhaps, more exposed than the male, excepting the free use of ardent spirits, which, to their honor be it spoken, they reject, generally, with becoming abhorrence, and view with mingled emotions its progress in the other sex. But there are difficulties peculiar to the sex, by which they are exposed to have their constitution injured. Very many consumptions have their origin in want of care and attention to themselves at certain critical periods. Either by too violent exercise, or taking cold by exposing themselves to the evening air, or damping their feet, &c. obstructions are formed, and frequently the constitution is irreparably injured, and the foundation of consumption laid before they are aware of danger.

Young females who have not an affectionate mother, or experienced female friend, to take care of them, and warn them of their danger, are to be pitied. Some are doubtless led to expose themselves at such critical periods, by a false modesty, or bashfulness, of which they have to repent when it is too late to prevent the evil; and some are criminally inattentive to the most tender advice, till qualified, by painful, perhaps fatal experience, to warn others, and too probably with as little success. It is verily the opinion of the writer, that many, very many of the cases of consumption among females, have their origin in colds taken at times when they ought to be peculiarly careful of themselves.

Another reason which may be assigned for consumption being more frequent among females than males, is the *fashion of dress*. While the female constitution is more delicate, and consequently more easily injured, females are most exposed, by the tyranny of fashion, to all the inconveniences of our fickle climate. Fashion has led them farther from the decent, comfortable, and healthy dress of their ancestors, even than it has the males; and too many are so unhappily enslaved, that the seasons of the year can effect but very little change in the habit, unless the mistress fashion, or the leaders of the fashion say so. It is important to the preservation of health, that clothing should be suited to the season, and such as to protect the body against the changes of the weather, and guard it from the cold. And if consumptions have become frequent, as is quite apparent they have, in some proportion to the changes in

dress, as they have progressed from the warm and comfortable, to the light and airy ; then we have too great reason to predict an increase of the number of victims from the present mode. Now in sultry days of summer, moist and damp weather, foggy mornings and evenings, and in piercing cold of winter, fine linens and thin muslins, are almost all that is allowed to cover the delicate limbs. Very thin clothing, naked bosoms, and arms bare almost to the shoulder, are melancholy prefaces.

The very general and frequent use of tea is also thought to have influence in increasing the number of consumptive habits and cases. Tea is allowed to be a nervine, and ranks in the class of tonics. It may, by a moderate and judicious use, in many cases promote health, enliven the spirits, and "cheer but not inebriate ;" yet like all other tonics, by too free and frequent use, it will produce indirect debility, manifested by palpitations of the heart, trembling of the nerves, &c. This perhaps *valuable medicine*, however, has become a principal, and is viewed as a necessary article of diet, especially among females, and is frequently taken with very little solid food. No injury is soon perceived. The progress from health to disease is often slow, they are not alarmed by any sudden and sensible consequences ; and even when symptoms of increasing debility are perceived, they are unwilling to believe it can be occasioned by the *favourite tea*. The cause is not suspected, but applied to as a remedy, and verily believed to do good, because their wasted sinking spirits are revived thereby for the moment. Let observation decide whether the blooming cheek of health is most commonly found among those who diet much on tea, or where it is seldom tasted.

If I might be permitted, I should in this view name *Balls*, especially as they are frequently conducted in the country. In order to have a just idea of them, we must conceive a large collection of youth of both sexes assembled, probably in a crowded room, their spirits exhilarated by agreeable company, and tea, then the exercise of dancing to follow, till the pores are all opened, and the body fatigued, and this continued till weariness or custom shews them it is time to separate. View them passing out from the highly rarified air of a warm and crowded room, into the cold air of midnight, to ride to their homes, which are at a distance, with little additional covering to their light and airy dress, which would probably scarcely be burthensome in a summer's day, and it will be hard to conceive that the delicate female constitution can bear all this without material injury. Such assemblies of young people, and conducted much after this manner, are not uncommon, especially in the winter. Perhaps some may, but few indeed can,

bear this without feeling hurtful effects ; and many fine constitutions are ruined by it. Whatever may have been predisposing causes, most cases of pulmonary consumption, have their first alarming symptoms from a cough occasioned by a cold ; and many females who find a premature grave, may date their decline of health from their evening ball.

I am sensible that many arguments are used in favour of such recreations, and also that it is hard reasoning against a favorite amusement : but is not loss of beauty, loss of health, and perhaps loss of life at an early period, too great sacrifices to be made for the pleasures of an evening ball, for even polite accomplishments, easy manners, and agreeable company ?

“ Forgive the crime ; I wish them, I confess,
“ Or better manag’d, or encourag’d less.”

When consumption is *seated*, as it is called, it is generally considered as incurable ; and the little success which has attended medical prescriptions hitherto, leads to view this as one of the most formidable of diseases. Surely then, where there is very little ground to hope for relief when once the disease is settled, it must be of utmost importance to attend to preventative means, and guard against occasions or causes of much disease. Here then let tender mothers be urged with greatest earnestness seasonably to notify their young daughters of the change which, in the course of nature, is to take place in them at a certain age ; to warn them of the danger which attends indiscretion at such times, and with peculiar tenderness to watch over them, and take care of them. Many young females, for want of knowledge and experience, have at such times immediately endangered their lives ; and many have ruined their constitutions, if not laid the foundation of consumption. Shall affectionate mothers lose the comfort they have fondly anticipated in their daughters, and be subjected to painful reflections by neglect of a duty which no one can discharge with so much propriety as they can ?

Let parents be urged by moral considerations and their affections for their offspring, to let their wisdom supply the want of experience in their children, their daughters ; and their authority, if necessary, restrain them from following such fashions and fashionable practices as have a direct tendency to injure their health.

Young people, especially females, are entreated to pay particular attention to the *first appearances of indisposition*. A cough, probably occasioned by a cold, is considered as a slight affair ; yet it is too often neglected, even after it has continued beyond the usual time, till the lungs are so debilitated by irritation and labor, that assistance comes too late. Whenever it is found that appetite fails, strength decreases, and the vessels

begin to lose their tone, &c. these are alarming symptoms, from whatever cause they may originate : they demand an immediate attention. A high flow of spirits may not allow them to complain : they think to *shake it off* ; but delays are extremely dangerous. Perhaps some strive to hide their indisposition, lest the care of faithful and tender parents should deprive them of recreations on which their hearts are set ; and they pursue their course, till restrained by fatal inability. But shall health, and perhaps life be sacrificed to pleasure ? Some also, whose minds have been occupied in business, or pleasures, start at the thought of their liability to sickness and death, they are unwilling to believe the surest evidences, and instead of paying seasonable attention to their declining health, labor hard to contradict their own feelings. Yield then to the voice of reason, and the counsels of affection and experience ; and let not the power of fashion, and love of pleasure drive or allure to the loss of the greatest temporal blessing, health. Consider no indisposition as trifling, which is a forerunner of CONSUMPTION.

PHILO.

AGRICULTURAL.

Experiments and Observations on the Canker Worm, by Dr. ROWLAND GREEN, jun.

DR. ADAMS,

THE enclosed is the result of a number of experiments and observations made in the years 1793 and 1794. If you think it contains useful information, you may, if you please, insert it in your Register.

R. GREEN, JUN.

Mansfield, July 18, 1806.

On the Canker Worm.

WITHOUT preliminary observations, I shall endeavour to give a general outline of the natural history of the insects, called canker worms. Contemptible as they are, they arrest the attention of the farmer, by the devastation they make in his orchards.

Early in the spring, the insects, in their perfect form, make their appearance, and deposite their eggs in the rough or fractured bark, sharp angles of the branches and other small cavities on the smaller limbs of the apple tree. This happens

fooner or later according to the warmth of the season. The frozen earth must be thawed, that the insects may make their way through the same, and ascend the trees. The time when the eggs are hatched, also depends on the warmth of the atmosphere, commonly about the first of May ; however, the best criterion is the early period of vegetation.

The worms in their infant state are very small, about one-tenth of an inch in length, and are black ; when full grown, are of various sizes, generally three-fourths of an inch in length, and one-twelfth of an inch in thickness, and are striped, brown, black, &c. They have six anterior feet, and four posterior, which are larger than the former. When they move, they bring the posterior feet near to the anterior, bending the body, then reach forwards, and take hold with the anterior feet, and then bring the hinder parts onwards, &c. When moving from place to place they emit a small spider-like thread, and if by accident they lose their hold, suspend themselves by it. This thread they can climb, and resume their former situation, or spin to some length, and by the help of the wind, may be wafted to adjacent trees ; or by falling on travellers, carriages, &c. may be conveyed from one orchard to another at considerable distance. They devour most at night, and are most voracious the last week of their continuance on the trees. Frequently they are so numerous as to devour all the foliage on certain trees, and consequently, if they have not arrived to maturity, great numbers perish. When the trees are thus disrobed of their verdure, exhalation and absorption are interrupted, and if the force of vegetation be not strong, they blast and die, but if vegetation go on forcibly, they assume new life, a new foliage comes on. When they have come to their full growth and maturity, which is in about three weeks from the time of being hatched, they leave the trees commonly by travelling down the trunk, and go into the earth. This movement is generally in the evening ; and it is worthy of remark, that all their principal movements are enveloped in darkness. The time when they leave the trees is from the 20th of May to the 10th of June, depending on the time of leaving the egg, &c. They dig into the earth from one to five inches, according to the hardness of the soil ; but where the turf is hard and tough, they will sometimes take their lodgings within an inch of the surface. They are found in the earth, as far from the trunk as the branches of the same extend, but are most numerous near the trunk. They place themselves in the earth nearly perpendicular, with the head uppermost, and gradually contract in length, which on the seventh or eighth day of their new abode is contracted nearly one-third. They are now unable to walk, feet shrivelled, hav-

ing but little motion. About the ninth or tenth day the act of transformation takes place, and is completed in a few minutes ; just before this, the insect appears uneasy by its various motions, until the skin (which at this time seems to be much disengaged from the body) bursts at the head and over the anterior feet, and by repeated exertions, is divested of its vermicular clothing.

They are now in the aurelian state, contained in thin shells of a light brown colour, about four-tenths of an inch in length, and much larger at the anterior part than at the other, which is pointed. The shell grows harder and darker until the whole is of a dark brown, also their motion diminishes as the shell grows harder, until they are apparently destitute of any. In this state they lie uninjured by frost through the winter, till the last of February or first of March, at which time if the earth is sufficiently thawed, and the weather mild, they again transform, and rank with the miller tribe, leave the earth, travel to and ascend the trees, and continue to come out of the earth, more or less, according to the state of the weather, to the 15th of April. In some years when the spring is forward they may be all out of the earth some days before the time here mentioned ; and if the spring is very backward, they may rise a few days later. If the earth is thawed, and there is sufficient warmth, neither storm nor snow will prevent their coming out of the earth and ascending the trees. The time of day for them to leave the earth is, in fair weather, just after sunset, and continue coming up some hours ; but in cloudy weather, they begin to move before. During the day they are not active, and but few are to be found without close inspection.

In this, the perfect state, they appear in two forms ; those with wings are called millers, and those destitute of wings are commonly called grubs.

The millers are the males, the bodies are of a lightish colour, about four-tenths of an inch in length, having four wings, and six legs which are long and slender.

The grubs are the females—their bodies are larger than those of the males, but not so long, and of an ashen colour ; legs much like those of the males ; being destitute of wings, they are under the necessity of ascending the tree by the trunk, and from this happy circumstance, the farmer may, by the means of tar, destroy the whole tribe in an orchard, in one spring, with proper care and attention.

Immediately after they arrive on the tree, they are active, moving from place to place, and in two or three days the females begin to deposit their eggs, and continue so to do (moving from one place of deposit to another) for three or four days, more or less, and when concluded, being shrivelled, they

die, as likewise do the males, having performed an entire round and put an end to their work. Sometimes they continue a longer time on the trees, but appear to be in a torpid and dying state. Their eggs are small, numerous, and of a lightish colour, but just before they are hatched, become blueish. The number of eggs cast by a single grub, is, according to her magnitude, from 150 to 250.

It is not probable that they eat in the perfect state; their continuance is short, being doomed only to the production of their species. When they are prevented from going up the trees by tar, they may deposit their eggs in the rough bark or on the surface of the earth, and the eggs thus cast may hatch, and the worms ascend the tree, if not prevented.

A number of experiments might here be mentioned, confirming the above; but let the following suffice.

On the 2d day of March, 1794, two grubs came out of the earth, in which they were kept (in the aurelian state) during the winter. On the 3d were put with the same number of males into a glass vessel fitted to receive them. On the 5th, the grubs began to deposit their eggs on the small branches of an apple tree placed among them, and continued that office for four days, and then both males and females died. The eggs kept in a moderate temperature of air began to hatch on the 5th of April, and continued to hatch, more or less, according to the degree of heat in the atmosphere to the 20th following. The number of eggs cast by these two grubs (which were rather more than a common size) were 478, of which hatched 457, which is a numerous increase. Those that did not hatch appeared to contain the insects, but from unknown causes died. Eggs deposited at the same time, exposed to cold air, hatched not until some days afterwards.

Effectual mode of tarring.—In the month of February, or before the frost is out of the earth, prepare the trees for the reception of the insects, by applying in the most convenient place on the trunk, a strip of old linen cloth three inches wide, and so secured with clay or tow that the insects cannot pass underneath, also tow should be twisted in the form of a rope, and tied round the trunk at the lower edge of the cloth to prevent the tar from running down, which would injure the tree.

Whenever the earth begins to thaw, or the degree of heat is above the freezing point (32° of Fahrenheit's thermometer) apply the tar to the cloth with a brush just before sunset, and sooner if the weather be cloudy. The tar should be thin, but if it be thick it will be necessary to warm it, or add to it a sufficient quantity of fish-oil to make it thin and run free. The tar must be applied every day during the season of

their going up; and if they are very numerous it will sometimes be necessary to apply the tar twice in an evening. Delays are dangerous; the insects wait for no man; and if a few pass up, the tree is ruined for the ensuing year.

After the season of tarring is over, remove the cloth, &c. scrape the trunk below the place of tarring, and apply four or five inches of earth round the trunk to keep the eggs, if any deposited, below the tar or on the surface of the earth from hatching. In six weeks this earth may be removed from the trunk, as the eggs by this time will be destroyed, for the want of proper heat and air.

Question answered.

DR. ADAMS,

In your Medical and Agricultural Register, for August, page 121, you have this question—"In cold moist land, and in cold wet seasons, when Indian corn is often so chilled or soaked in the ground as never to vegetate, is it best to cover deep or shallow? to plant in a deep furrow, or on a high ridge? and what kind of manuring is best?"

If the land be very wet and cold, in my opinion, it is absolutely necessary to plow your land in ridges. If this is not convenient or practicable, dig your holes deep, let the mould lie several days to warm and dry in the sun; if your land is clay, fill your holes half full of coarse sand or gravel, then a layer of the earth from the holes; then manure your ground with horse dung or christian dung if in your neighbourhood; if mixed with lime, ashes, dust of pit or charcoal, the better; then a layer of your dirt; let the holes be completely full, and more than full before you drop your corn; then cover it about one and a half inches deep. If the weather be wet and cold, at weeding draw the dirt moderately from the hill, that the roots may more forcibly feel the rays of the sun; for we all know that heat is the one thing needful for corn.

MARCUS.

Bristol County.

Extracts from a Communication by EZRA L'HOMMEDIEU, Esq. to the Agricultural Society of New York, and published with the Transactions of the Society, 1801.

On the Feeding of Hogs to Advantage.

"THE business of a farmer has been compared to a hoop, which has no end; it is certain that there is no business which requires, especially to minute objects, so much care: every thing

must be attended to, every thing must be saved, and every business done in season. Farmers in general are not fond of trying experiments, and are more attached to *their old customs* than people of other professions. The best way to introduce any thing new which is useful among them, is to give them ocular demonstration.

As much depends on saving in the farming business, I shall take the liberty of making some observations on the savings which may be made by *the feeding of swine*. It is a common practice for the people of this State, so far as I am acquainted, to give their hogs among other things, *hard corn*, especially when they are fattening; some have their corn ground, supposing they make a saving in feeding with meal instead of corn, besides paying one tenth for the grinding. A little observation convinces one that it must be a great loss to feed hogs on hard corn; it is not digested, and a considerable portion is discharged with the dung. To avoid this evil, I have been in the practice of soaking all my hard corn before it is given to the hogs; this I have seen practised in Connecticut, and is recommended by Dr. Elliot of that State, in his essays on husbandry. By the experience I have had, I make no doubt but more than *one tenth* of the corn fed to hogs, by this mode of soaking, might be saved.

Mr. L'Hommiedieu here undertakes a calculation what the saving in this way might be, in the course of a year, throughout the State of N. York. He takes for granted, that, excepting the inhabitants of the cities of Hudson, Albany, and New York, the number of swine would be equal to the number of inhabitants in the State; that each swine consumes on an average two bushels of corn in a year, equal to 1,060,000 bushels, of which one tenth is 106,000 bushels, the saving in one year; which, reckoned at four shillings per bushel, will make the considerable sum of 20,200*l*.

"As we are now on the subject of feeding hogs, it may be of use to observe that farmers lose much by giving fresh bran to hogs; it is easily observed by *their dung* that this bran is not digested. Perhaps the stomach of a hog is such that it will not take hold of a substance so slippery, which it will do when it becomes sour; the hog then digests nearly the whole.

"Hogs do very well on white or red clover or spear grass, with little or no other food, and in many parts of the country inclosures are made solely for that purpose; but when lands are poor, and manure is much wanted, it is more profitable to keep them up the bigger part of the year; the manure they make by fods, weeds, straw and other vegetables being thrown into the pen, will more than pay for their keeping, as I have some years ago observed to the society. It is very necessary when hogs are kept up

to have a post set in the middle of the pen that they may rub themselves with more convenience than they can otherwise do. It will be convenient to have two or three vessels or casks for the soaking of corn to feed hogs, so that the corn may be sufficiently soaked before it is given out : in cold weather, or in winter, it should be kept in the cellar, to prevent freezing. As the water in which corn is soaked may be more nutritious than otherwise, it will be best to give this water as occasion may require to the hogs to drink. As to the time necessary to soak the corn, no special direction can be given, as it depends on the temperature of the weather ; it ought, however, to be so much soaked, as to prevent that indigestion which is experienced in feeding with hard corn, and it is easily discovered by the dung of the hogs. While we are on this subject of soaking of corn, it may not be amiss to mention that soaked corn is a much better feed for horses than moist other, and less dangerous than hard corn. I have known many farmers in this practice, and have practised it myself to good advantage. It is generally supposed that you make a saving by feeding Indian meal to horses, more than to pay for the toll of grinding the corn. I have tried both, and am of opinion that a horse will be kept in better flesh by feeding with soaked corn than by Indian meal, and that there will be a greater saving in the former than in the latter."

MISCELLANEOUS ARTICLES.

ARTICLE XXIV.

Result of Meteorological and other Observations, for August, 1806 ; made at DEERFIELD, WARWICK, MASON, PORTSMOUTH, and SMITHFIELD, (R. I.)—For the Medical and Agricultural Register.

August, 1806.	Mean degs. at sun-rise.	Mean degs. at 2 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	59 $\frac{1}{2}$	74 $\frac{1}{2}$	67 $\frac{1}{2}$	8th day 88°	19th day 48°	S. 14 days			3
Warwick	60 $\frac{3}{4}$	78	69 $\frac{1}{2}$	89	45	N.W. 13 days		1	2
Mason	63 $\frac{1}{2}$	73	68 $\frac{1}{2}$	84	56	W. 14 days			—
Portsmouth	61 $\frac{1}{2}$	74 $\frac{1}{2}$	68	83	54	N.W. 11 days			
Smithfield	63 $\frac{1}{2}$	74 $\frac{1}{2}$	69 $\frac{1}{2}$			S.W. 10 days			

WEATHER.

1st day, foggy, fair.		15 } cloudy mornings, then rain 1,0†
2—cloudy, a little rain,	0,3*	16 } fair; sprinkling of rain
3 } Sund. fair, brisk		17 } Sund. in some places.
4 } winds.		18—fair.
5—cloudy, a little rain, 0,40† 0,3*		19 } cloudy and sunshine
6—flying clouds; Portf. thund. sho.		20 } alternately, 0,10† D first quarter.
7—fair and pleasant; & last quarter.		21 } sprinkling of rain
thunder.		22 } in some places.
8—foggy, fair, small showers.		23 } Sund. thun. shower, 0,50† 1,35*
9—cloudy, fair, sprinkling of rain.		24 } Portf. severe thun. shower, 0,5*
10 } Sund. Smithf. frost in low lands.		25—fair. Smithf. people beginning
11 } fair and		26 } foggy morn- to make
12 } pleasant.		27 } ings, fair. cider.
13—cloudy, gentle showers; 0,30† 0,1*		28 } fair, brisk winds.
14—cloudy morning, fair. New Moon.		29 } Smithf. peaches begin to ripen.
Smithf. pears and apples begin to		30 } fair, some
ripen.		31 } clouds. Deerf. shower.

Depth of water fallen in rain—Warwick 2,40 inches; Smithfield 2,65 inches.

Mason.—We have had but little rain this month, the drought becomes pinching. The crop of hay, especially on high lands, has been very small, and the feed in pastures unusually short. The crops of English grain very good; Indian corn in most places in this town looks promising.

N. B. The thermometrical observations have been made hitherto in an unshaded room. In future they will be made in the shade in the open air.

Warwick, August, 1806.

State of health, &c.—The month has been very healthy, a few cases of the dysentery excepted.

Progress of vegetation, &c.—The vegetable creation has moved towards maturity in a moderate degree; perhaps a little more rain would have rendered its progress more rapid. We have had pears, and fruit of the stone kind in great plenty. The quantity of apples in proportion to our orchards will be very moderate.

W. COBB.

Smithfield, August 31, 1806.

The weather continued dry till the 23d, when we had a copious shower in the morning, and some thunder, followed by gentle rain till night; when the wind shifted from north-west to north and north-east, and the rain continued with considerable wind, till the evening of the following day. The temperature of the air changed very suddenly at the commencement of the shower on the 23d. At fifteen minutes before nine, A. M. the mercury stood at 78°; but in twelve or fifteen minutes it had fallen to 63°.

* At Smithfield.

† At Warwick.

It is believed that the crop of Indian corn will be considerably diminished on account of the dry cool weather. In many places where it had acquired a good growth of stalks the ears are not so numerous, large or full as usual. Apples are considerably plenty. Pears and peaches are also plenty. This month has been healthy, for the season, but few cases of fever have occurred for this time of the year.

A SMITHFIELD SUBSCRIBER.

Deerfield, August 31, 1806.

Remarks.—Our people are now getting their second crop of grafs; this, except on low wet grounds, turns out very light, in consequence of the prevailing drought, which has been very severe during the month. The rains which have fallen this month have been small, and have furnished but little nourishment to vegetation. Notwithstanding the very promising appearance of Indian corn in the early part of the season, we now expect but an indifferent crop; for, in general, the ears are thinly set, and are small. Our farmers say the summer has been too cool for this crop, and I believe the remark to be true. The nights have in general been uncommonly cool throughout the season.

State of health, &c.—The month has been rather unhealthy. We have had several cases of dysentery, but they have not proved very fatal. The *cholera morbus* has been uncommonly frequent, but it has not in any case terminated fatally. A few cases of fever have occurred in this and the neighbouring towns. The 23d of the month, died, Mr. John Sheldon, of the consumption. This was the father of the family out of which three have died of the same disease, within four years, as mentioned in my former communications: others in this family are now threatened with hectic symptoms.

E. HOYT.

Extract from a public Print.

Edgerton, (Martha's Vineyard,) August 23, 1806.

"We have had a very severe storm here. On the morning of the twenty-third, the heavens appeared to be covered thick with darkness; the wind south-west: it now began to rain attended with flashes of lightning, not sharp, and but little thunder; the rain continued all day, and at times seemed to pour down in torrents; towards night it abated: in the night the wind shifted, and in the morning was at east; it soon began to rain, the wind veered to north-east, and it increased to one

of the severest gales I have ever experienced. The rain increased with the wind, and the face of the ground appeared a flood of water. The quantity that fell is almost inconceivable. A barrel that stood in the open field was filled. At the most moderate computation it fell *thirty inches deep* upon a level. It is impossible to estimate the damage it has done. The corn is all beat flat to the ground, and the stalks stripped of their leaves. It has risen since, but will never recover. The labor of the husbandman, I presume, is cut short more than one half. The prospect of fruit was promising; the apples are almost all blown down. We have experienced this summer the extremes of drought and of flood. From the twentieth of *April* to the twentieth of *July*, but very little rain; and now a rain in judgment."

The rain on the twenty fourth, (Sunday) at Boston, commenced some time previous to two o'clock the night before. It was a very steady, uniform rain for more than twelve hours. The quantity of water fallen on a level, between the hours of *twelve* and *one*, was *four-tenths of an inch*. Forty miles back to the north-west, in the country, the whole quantity of water fallen in rain through the day, by actual measurement, was but *half an inch*.

For the MEDICAL AND AGRICULTURAL REGISTER.

New York, April 26, 1806.

"Mr. Munroe, minister of the United States to the English government, has transmitted, at the request of the envoy of the king of Prussia, resident in London, and by order of the king, a gold medal, to Dr. RUSH, of Philadelphia, as an acknowledgment of the high sense entertained of his medical writings. The medal contains on one side a likeness of the king of Prussia, and on the other, an appropriate device."

POETRY.

Omens of the year; the first Symptoms of Fever described; Medical Aid to be called in immediately. The Danger of Delays, Frailty of human Life.

I IN prophetic numbers could unfold
The omens of the year; what seasons teem
With what diseases; what the humid south

Prepares, and what the demon of the east :
 But you perhaps refuse the tedious song.
 Besides, whatever plagues in heat or cold,
 Or drought or moisture, dwell, they hurt not you :
 Skill'd to correct the vices of the sky,
 And taught already how to each extreme
 To bend your life. But should the public bane
 Infect you, or some trespass of your own,
 Or flaw of nature hint mortality,
*Soon as a not unpleasing horror glides
 Along the spine through all your torpid limbs,
 When first the head throbs, or the stomach feels
 A sickly load, a weary pain the loins,
 Be Celsus* call'd : the fates come rushing on ;
 The rapid fates admit of no delay.*
 While wilful you, and fatally secure
 Expect to-morrow's more auspicious sun,
 The growing pest, whose *infancy was weak*
 And easy vanquish'd, *with triumphant sway*
 O'ERPOW'RS YOUR LIFE. For want of timely care
Millions have dy'd of medicable wounds.
 Ah ! in what perils is vain life engag'd !
 What *slight neglects*, what *trivial faults destroy*
The hardiest frame ! Of indolence, of toil,
 We die ; of want, of superfluity.
The all-surrounding heaven, the vital air,
 Is BIG WITH DEATH ; and though the putrid south
 Be shut, though no convulsive agony
 Shake from the deep foundations of the world
 Th' imprison'd plagues, *a secret venom oft*
Corrupts the air, the water, and the land.
 What livid deaths has sad Byzantium seen !
 How oft has Cairo with a mother's woe
 Wept o'er her slaughter'd sons and lonely streets !
 E'en Albion, girt with less malignant skies,
 Albion the poison of the gods has drank,
 And felt the sting of monsters all her own.

ARMSTRONG.

* A physician.

 CONDITIONS OF THE REGISTER.

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 CONDUCTED BY DANIEL ADAMS, M. B.

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THE

Medical and Agricultural Register.

VOL. I.]

OCTOBER, 1806.

[No. 10.

M E D I C A L.

For the MEDICAL AND AGRICULTURAL REGISTER.

On the use of cold Water; certain Distinctions very necessary to be noticed by those who make use of it, whether internally as a Beverage, or externally as a Bath. By Dr. J. G. COFFIN.

DR. ADAMS,

THE directions in your 7th No. "To prevent the fatal effects of drinking cold water, or cold liquors of any kind in warm weather," struck my attention as being singularly erroneous.

"To avoid drinking while you are warm," is the first rule inculcated; this I conceive to be the reverse of what ought to be enjoined. When is cold water to be drank with safety, pleasure and advantage? Certainly not when the body is cold. In this state it is neither agreeable nor necessary, except in moderate quantity, and as an article of diet by those who make it their common beverage.

On the contrary, it is to be taken when the body is heated by exercise or morbid excitement; and the more freely in proportion to the intensity and permanency of the heat and dryness of the skin.

The second direction is, "Drink only a small quantity at once, and let it remain a short time in your mouth before you swallow it; or, thirdly, wash your hands and face, and rinse your mouth with cold water before you drink." Now if in certain conditions of the system, it is hazardous to drink cold water, as undoubtedly it is, then it is the more so, as these directions are the more exactly obeyed. A man, for instance, warmed by labor, and

before perspiration has appeared, may drink cold water freely ; that is to say, he cannot be incommoded by it, unless from an immoderate quantity it oppresses the stomach by its weight ; or, unless he remains inactive after it, and in such a situation as to cool the body too suddenly, and so far as to leave its temperature below the standard of health.

As this augmented heat is the state in which the greatest quantities of cold drink can be taken with impunity and advantage, so is it the state in which cold bathing is most pleasant and useful. If this man, however, continuing his labor, *having perspired freely, become cool, and being fatigued*, should then indulge in a liberal use of cold drink, he would do it at the risk of his life. Cold bathing would now also be equally injurious.

"Thus persons heated and beginning to sweat, often think it necessary to wait on the edge of the bath until they are perfectly cooled ; and then, plunging into the water, feel a sudden chilling that is alarming and dangerous. In such cases the injury is generally imputed to going into the water too warm ; whereas it arises from going in too cold. In the early stages of exercise, before perspiration has dissipated the heat, and fatigue debilitated the living power, nothing is more safe than the cold bath. This is so true, that I have for some years constantly directed infirm persons to use such a degree of exercise before immersion, as may produce some increased action in the vascular system, with some increase of heat ; and thus secure a force of reaction under the shock, which might not otherwise always take place."*

The following illustration is much to our purpose. "On the 1st of September, 1778, two students of Medicine at Edinburg set out on foot on a journey, a considerable part of which lay along one of the rivers of Scotland. They started by sun-rise, and proceeded with alacrity in the cool of the morning. At the end of eight miles, they breakfasted, rested one hour, and then resumed their journey. The day grew warm as it advanced, and after a march of eight miles, they arrived heated, but not fatigued, on the banks of the river above-mentioned, about eleven in the forenoon.

"Urged by the fervor of the day, and tempted by the beauty of the stream, they stripped instantly and threw themselves into the river.—The utmost refreshment followed, and when they retired to the neighboring inn, this was succeeded by a disposition to sleep, which they indulged. In the afternoon they proceeded, and travelling sixteen miles farther at a single stretch, arrived at the inn where they were to sleep, a little after sun-set. The afternoon had been warm, and they had sweated profusely ; but the evening was temperate, and rather cool. They had travel-

* Currie.

led for some miles slowly, and arrived at the end of their journey, stiffened and wearied with their exercise. The refreshment which they had experienced in the morning from bathing, induced one of them to repeat the experiment ; and he went perfectly cool, into the same river, expecting to relax his limbs in the water, and afterwards to enjoy profound sleep. The consequences were very different.

"The Tweed, which was so refreshing in the morning, now felt extremely cold ; and he left the water hastily. No genial glow succeeded, but a feverish chill remained for some time, with small frequent pulse, and flying pains over the body. Warm liquids and friction brought on at length considerable heat, and towards morning perspiration and sleep followed.

"Next day about noon they proceeded on foot, but the traveller who had bathed was extremely feeble ; and though they had to perform a journey of a single stage only, as some part of it was difficult and mountainous, he was obliged to take the assistance of a carriage which overtook them on the road. It was several days before he recovered his usual vigour."*

A warm bath would have been as proper and refreshing in the evening, as the cold bath had been to these travellers in the forenoon.

But at this time the "Medical Reports, &c." had not appeared ; and the true theory of cold and warm bathing, and water-drinking, was not understood. But lest I occupy too much of your present No. I can only open the subject in this place, and refer those who wish to become acquainted with the practice of water-drinking and bathing in all their modes of exhibition and application, in sickness and in health, to the very valuable work of Dr. JAMES CURRIE, of Liverpool ; where this important science is treated in a most luminous and satisfactory manner.

Your friend and servant,

Boston, October, 1806.

J. G. COFFIN.

For the MEDICAL AND AGRICULTURAL REGISTER.

Medical Extracts No. II.

Long Life.—WHEN the various functions of the body, voluntary and involuntary motions, are performed with ease, and suffer no interruption, the body is said to be in health ; in a

contrary case it is diseased. Considering the many dangers to which man is exposed, it is surprising that he should remain in health so long ; and our astonishment increases when we reflect how often he escapes the dangers prepared by his own hand. But parental nature frequently repairs the injury in a manner unknown to us. To sit down supinely with a notion, that if the Majesty of Heaven wills us to die, we certainly shall, in the use of means to prolong life ; and if He wills the contrary, we shall live, in the neglect of those means, is a conduct unscriptural and absurd. Disease may be considered the consequence of the moral or rather immoral conduct of man, in deviating from a line prescribed by his Maker.

The powers of life may be compared to the oil in a lamp : in time they will be exhausted : they may be supported or diminished : when exhausted death invariably closes the drama. Death from mere old age, may be compared to the extinction of the light when the oil is all consumed ; and death from disease, to the blowing out of the light, when the oil is not all consumed, and might have burned longer. There are laws in nature, by which man may arrive to maturity, to the summit of health and vigor ; and there are laws, by which his powers of life are lessened and finally exhausted. There are the " bounds which he cannot pass."

In order to extend the common term of life, mankind must be persuaded to return to that primeval state of nature, from which, history furnishes us almost incredible instances of longevity. The antediluvians enjoyed an uninterrupted state of health ; their manner of living and vegetable diet was simple and not injurious. They had little need to attend to their health, as the seeds of disease were little scattered in such a state. We have deserted from the simple mode of life, which prevailed in the primitive ages. We have acquired our improved state of mental culture, by sacrificing to it much of our bodily welfare. We are less accustomed to consult what nature requires, with respect to diet, mode of life, clothing, &c. than to follow fashions, customs, and our own disordered inclinations.

The desire of long life, is inherent in all animal life, and especially so in human nature ; and the possibility of prolonging it was never doubted by the orientals. The circumstances which favor the attainment of long life, are,

1. Descent from long lived ancestors, or a certain bodily and mental disposition to longevity.
 2. A gradual growth of the faculties, both of body and mind.
- Too early an exertion of the powers either of body or mind, is destructive. The paths of nature should be followed, and

every thing which hastens the evolutions of the natural powers, and every exertion of strength disproportionable to the ability of the individual, should be avoided, as of dangerous tendency. The age of man bears a certain proportion to the growth of his various powers. The design of nature is that man should live longer than most of the lower animals; he of course requires a longer space of time to develop the faculties both of body and mind. Nature resents every outrage committed on her treasures, and seldom fails to punish the transgressor with lingering disease or early dissolution.

3. Inuring ourselves to the habits of supporting and resisting the various impressions of external agency.—Man is capable of undergoing the vicissitudes of air, weather and climate, and can digest any article of food, if his stomach has not been wantonly indulged, without minute attention to time and regularity, if his duty or employment renders it necessary; but he who has been brought up tenderly (as it were in a hot-house) or he, who has been previously accustomed to a hardy mode of life, and is seized with a whim of bestowing too much attention to his health, will suffer from small causes, and take cold at every change of the air, &c.

4. Moderate exercise both of body and mind.—This adds to the powers of life, and is greatly conducive to the object in question. Equanimity, or that state of mind which is not disquieted by its own exertions, in mental research or other objects, is conducive to long life. Fatigue of mind is ruinous to the body. Profound speculation, where the mind is continually absorbed in abstruse inquiry, exhausts the powers of life, and brings premature old age.

5. A steady and equal progress through life.—He whom neither joy convulses, nor melancholy corrodes, whose drama of life is not chequered by too sudden vicissitudes, may expect, with some probability, a long enjoyment of that life to which he has become habituated. Grief destroys digestion, and relaxes the system. Fear weakens and disposes to disease. Anger inflames, and sometimes produces immediate death. All the passions, when carried to excess, bring on formidable diseases.

6. Temperance in eating and drinking.—There is scarcely an instance of any person, who has attained uncommon longevity, who has not been regular in his diet and manner of living. Every one should study his own constitution, and regulate his mode of life accordingly: he should make his own experience his guide in what he finds most suitable and convenient. A sound state of digestion greatly favors the attainment of advanced age; and there is not a surer symptom of approaching dissolution in aged persons, than *complaints of indigestion*. Those who wish to preserve a sound state of digestion will observe

temperance. We are liable to commit great errors both in quantity and quality of food, but especially the former; and every satiety is an outrage on the powers of digestion, which is of the utmost consequence to the welfare of the individual. He who eats slowly and moderately at several dishes of food, will less injure his stomach, than one who eats immoderately of one or two favorite articles. We ought to eat as much as is necessary to supply the waste suffered by the body, and that *slowly*, as the sudden expansion of the stomach is injurious, by diminishing the elasticity of its fibres. He who eats slowly, will feel himself satisfied when he has received a due quantity; but he who swallows his food too quickly, without proper mastication, will only think he has eaten enough when the food occasions a sense of weight and pressure. *But of one kind of meat at one time*; but at all events eat of that dish first which is the most palatable. This is an important rule, and he who observes it, is in little danger of overloading his stomach. Food should be taken moderately, well masticated, and with a serene mind: it should be taken at proper intervals; early in the morning; at noon, and not protract the hour of supper until the time which nature points out for rest. The most simple food is the most salubrious, and every person ought to attend to the effect which the various aliments produce, and judge for himself. Animal food, when too freely used, tends to a putrescent state of the fluids; and vegetable food is acescent, and corrects the putrescent tendency of animal; hence about three fourths of vegetable food, and one fourth of animal, are the proper proportions; and by this due mixture we may avoid the diseases arising from a too free use of either.

We ought to take drink only when nature requires, and then in small quantities. The general rule may be to take about double the quantity of liquids, to the dry food; however this will not apply in all cases, the season, weather, cold, heat, nature of the food, and more or less exercise, require more or less drink at one time than at another. The stomach ought never to be distended with liquids, as is often the case, occasioning a sense of weight, fluctuation, &c.

Thus by inuring ourselves to the unavoidable difficulties of life; moderate exercise both of body and mind; observing a *steady* and equal progress, especially as it respects the mind, together with a strict adherence to temperance, we may support the powers of life until an advanced age. But he, who is like the troubled ocean, regarding neither a regular mode of life, nor the rules of temperance, will reap the fruit of his own doings, be tormented by painful disease, and perhaps his lamp will be blown out at noon.

June, 1806.

G—.

AGRICULTURAL.

Egyptian Millet.

[The following papers on the introduction and cultivation of the *Egyptian Millet* into this country, were first published by the Massachusetts Agricultural Society, the present year. Through the politeness of Mr. Webster, the Editor has been favored with a quantity of this species of grain, a specimen of which he now encloses to each of his agents, in all the several towns where the Register is circulated. In this way the seed will be scattered, and the knowledge of it disseminated in all the New England States. It yet remains to be determined by further experiments and observation, how far this species of grain may be profitably and successfully cultivated by the people in these States, or whether it shall in part supercede the cultivation of oats or Indian corn, for which it seems it may be in some degree a substitute, particularly as a feed for poultry, horses, &c. for which it is said to be exceedingly good. Those who may have the curiosity to see this seed, or make an experiment with it on their farms, will call on the Agents for the Register in their respective towns. And those gentlemen, who may at any time, come into the possession of any choice or rare kind of seed, whether of grain or of grass, which they may wish to see experimented upon, or, of the advantages of which being persuaded, they may wish to have the blessings of it more extensively enjoyed, are solicited to make some communication of it to the Editor, who shall, at all times be happy to adopt this method of diffusing it extensively abroad. Also, those gentlemen, who, from the opportunity now presented, shall be disposed to make trial of the *Egyptian Millet*, are solicited to communicate the result of their experience another year.]

Portsmouth, (N. H.) Dec. 2, 1805.

DEAR SIR,

IN compliance with your request, I have made inquiry of the several gentlemen in this neighborhood, who have cultivated the new species of grain, which is here generally called Jerusalem wheat, respecting its history, culture, and properties, the result of which is :

That two years last spring a few seeds of a singular kind of grain, which were found in a crate of ware, at Exeter, were sown in a garden there ; the novel appearance of which, in the fall of the year, attracted the attention of many, and among others, of a Mr. Goss, of Greenland, who thinking it necessary to give it some name, called it Otaheite corn ; he procured some of the seed, and sowed it the next year on his farm, and there Col. WALKER and his son saw it. The son had seen a description of grain, called Jerusalem wheat, cultivated in Ireland, published in the Dublin Magazine, by the Agricultural Society there, which was republished in one of our papers, and concluded this to be the same species of grain. Col. WALKER procured of Mr. Goss a small quantity of the grain, and distributed it to several gentlemen of this town, who raised it in their gardens. Col. WALKER, on the twentieth of May,

sowed one and a half jill in drills* two feet apart, but set the seed in the drills as thick as he would any small seeds ; the inconvenience of which he discovered soon after it came up ; but he suffered it to grow notwithstanding : the soil was high, dry, and gravelly, and some butchers, without Col. WALKER's knowledge, had buried a quantity of blood there the year before, which burnt up the grain at one end of the drills, extending nearly one quarter the length of them ; he hoed it twice to kill the weeds ; the stalks grew about six feet high. The produce which was gathered on the tenth day of October, amounts to one and a half bushel.

Col. MOSES WOODWARD obtained about half a jill of seed, and sowed two rows of it in a field, on the eighteenth day of April ; the rows were eighteen inches apart, and he dibbled† the seed at six inches distance, but the seed rotted in the ground. On the fourteenth of May, he planted in holes three feet by two and a half feet asunder, three hundred sixty holes in all, placing five kernels, at suitable distance, in each hole. The ground was stiff, hard and cold clay, covered with about two inches of soil near a wall, and was broke up the same spring to destroy the sord, was not manured, and was hoed twice to destroy the weeds, but was not hilled, as in raising Indian corn. About three seeds from each hole came up, and produced generally three stalks apiece, which grew about six or seven feet high : the grain is formed in a head on the top of the stalk. He gathered on this piece twelve hundred heads, which on an average, contained one jill of seed. On the third of June, he planted the remainder of his seed ; but being injured by the drought, it did not come to maturity. Col. WOODWARD thinks the time of planting Indian corn, is the proper time of sowing it, and that it should be dibbled six inches apart, in drills three feet wide. The stalks and leaves make excellent fodder for horses and cattle, but the value of the grain yet remains uncertain. Those who pretend to have seen it abroad, call it by different names, and describe it differently. The stalk and leaves bear a near resemblance to Indian corn, and I believe it will be classed in that genus, rather than be accounted any species of wheat. In the description of the Jerusalem wheat, the grains are said to be large

* Rows.

† *Dibbling* is a process in husbandry which consists in making perpendicular holes an inch and a half or two inches deep with a simple instrument provided with a number of tines for that purpose, into which holes the seed is dropped and afterwards covered with a brush harrow, where this system is extensively practised. The same may be done in a less expeditious way with a staff.

and round ; these are flat like the kernel of Indian corn. Mr. CAZEAUX, the French commissary here, shewed some of this grain to an Irish gentleman, who called it the greater or larger millet, and said it was common in Ireland.

One gentleman in this town has been so curious as to count the grains in one head, and found it to contain twenty-five hundred and fifty-four. If three of these heads are produced from one kernel, the increase is very great.

We have procured a small quantity of it to be ground and bolted, and have made it into bread of different kinds, but all of them prove very ordinary. Yeast, or leaven, does not produce any fermentation in it ; but when made into a batter and baked in thin cakes, it is palatable while warm.

I have the pleasure of sending you some of the flour, and a small quantity of the grain for seed. If it will not answer for bread, it may be valuable for other purposes.

I am, very respectfully,
your most obedient servant,

NATHANIEL ADAMS.

HON. DUDLEY A. TYNG.

Boston, November 12, 1805.

DEAR SIR,

LAST year I obtained a head of Egyptian millet, (*Holcus Dura*) weighing five ounces, the grain of which weighed four ounces. This was planted in April, in the manner of Indian corn, five grains in a hill, making three hundred and eighty-nine hills. From these, seventeen hundred and two heads were cut on the first of October, and about fifty were broken off by the wind early in the season. The whole produce was seven bushels of fair, clean grain. Comparing it with the same number of hills of Indian corn, the product was rather better, but the millet does not spread so far, and might have been doubled on the same quantity of land ; and two rows, planted in drills eight inches apart, with room for a horse plough between the rows, proved that this would have been a better method of planting, than in hills nearly four feet apart.

When Indian corn began to be injured by the drought, the millet grew more rapidly, and not a head was blasted. Some that was near a brook, on cold wet land, was not ripe till late in October ; that on warm loam was the fullest and largest, and early ripe ; that on warm gravel, earlier still, but not so large. One row I manured with plaster of Paris in the hills,

which was only one foot high, when the other was three; a spoonful of plaster was then put round each stalk, and in three weeks, it equalled the other in height.

It is the opinion of some farmers, that half an acre of good land will produce, with less expense, as much of this grain, as an acre will of barley, oats, or rye.

I send you a few heads, and will add some of the flour, when I get it from the mill; and any of your friends that are disposed to try it, may have as much of the seed as they will plant.

I am, Sir, your humble servant,

R. WEBSTER.

Dr. AARON DEXTER.

TO THE AGENTS FOR THE REGISTER.

IN the bundles of this No. of the Register, is inclosed a small quantity of the *Egyptian Millet*, treated of in the foregoing papers. Of this you will make a careful distribution among those in your several towns, who may have the curiosity or disposition to make trial of it another year. As was before observed, further experiment and observation are necessary, to determine how far the cultivation of this species of grain may *profitably* become an object in American husbandry; and the solicitation is again repeated of such further information on this subject as time and opportunity shall offer.

EDITOR.

GOOD CIDER.

Directions for making sweet, clear Cider, that shall retain its fine vinous flavor, and keep good for a long time in casks, like wine.

[From the N. Y. Commercial Advertiser.]

THERE are persons in this country, who have for years been in the habit of making a particular fine rich and sweet Cider, which they sell from six to ten dollars per barrel; the method of doing it they have endeavored to keep a profound secret.

The writer of this being acquainted with the art, is desirous that all cider makers may profit by it; and takes this method to make it more generally known.

It is of importance in making Cider, that the mill, the press, and all the materials be sweet and clean, and the straw clear from must. To make good Cider, fruit should be ripe (but not rotten) and when the apples are ground, if the juice is left in the pumice 24 hours, the Cider will be richer, softer, and

higher coloured ; if fruit is all of the same kind, it is generally thought that the Cider will be better ; as the fermentation will certainly be more regular, which is of importance. The gathering and grinding of the apples, and pressing out the juice, is a mere manual labor, performed with very little skill in the operation :—but here the great art of making good Cider commences ; for as soon as the juice is pressed out, nature begins to work a wonderful change in it. The juice of fruit, if left to itself, will undergo three distinct fermentations, all of which change the quality and nature of this fluid. The first is the Vinous ; the second the Acid, which makes it hard and prepares it for vinegar : by the third it becomes putrid. The first fermentation is the only one the juice of apples should undergo to make good Cider. It is this operation that separates the filth from the juice, and leaves it a clear, sweet, vinous liquor. To preserve it in this state is the *grand secret* ; this is done by fumigating it with sulphur, which checks any further fermentation, and preserves it in its fine vinous state. It is to be wished that all Cider makers would make a trial of this method ; it is attended with no expense, and but little trouble, and will have the desired effect. I would recommend that the juice, as it comes from the press, be placed in open headed casks or vats ; in this situation, it is most likely to undergo a proper fermentation, and the person attending may with great correctness ascertain when this *first fermentation* ceases ; this is of great importance and must be particularly attended to. The fermentation is attended with a hissing noise, bubbles rising to the surface and there forming a soft spongy crust over the liquor. When this crust begins to crack, and a white froth appears in the cracks level with the surface of the head, the fermentation is about stopping. At this time the liquor is in the fine gentle clear state, and must be drawn off immediately into clean casks ; and this is the time to fumigate it with sulphur. To do this, take a strip of canvas or rag, about two inches broad and twelve inches long, dip this into melted sulphur, and when a few pails of worked Cider are put into the cask, set this match on fire and hold it in the cask till it is consumed, then bung the cask and shake it that the liquor may incorporate with and retain the fumes ; after this, fill the cask and bung it up. This Cider should be racked off again the latter part of February, or first of March ; and if not as clear as you wish it, put in isinglass to fine it, and stir it well ; then put the cask in a cool place where it will not be disturbed, for the fining to settle. Cider prepared in this manner will keep sweet for years.

It is certainly of great importance to the people of America to cultivate the fruit that is natural to the soil of their country, and to make the most of the fruit which the soil produces ; especially, when its produce is an article of value, and of great consumption in this country.

A Lover of Good Cider.

Method of preserving Cabbages so as to have them good till late in the Spring.

[From the New-England Farmer.]

MAKE a trench in the driest sandy ground, nine inches wide, and of equal depth ; in which, place a row of Cabbages, with the roots upwards, contiguous to each other. Fill the cavities about them with some dry straw, and then shovel the earth up to the stalks on each side, almost as high as the roots, shaping it like the roof of a house. The Cabbages will come out in May as sound as when they were put in, and the outer green leaves will be turned quite white. As they are not apt to keep well after they are taken out, two or three at a time may be taken as they are wanted for use, and the breach immediately closed up with straw and earth as before.

Extract of an Oration delivered by Dr. MITCHILL, before the Agricultural Society of New-York, on the 10th of January 1792.

SYSTEMATIC AGRICULTURE.

"HITHERTO, the American husbandman has cultivated a soil, enriched for ages by the yearly addition of a fresh stratum of mould. From the first existence of vegetation upon the dry land, decayed plants have continually furnished a supply of manure, which the winds and the rain have liberally spread abroad. As the supply was annually greater than the consumption, the earth, unexhausted by its productions, increased in fertility. The thick layer of vegetable mould which covered the face of the earth was a store-house of food for plants, and their quantity was greatly increased by the conversion of wood into ashes by clearing. It is not wonderful then, that for some years newly cleared settlements should abound in produce, and require little more labor than that of ploughing and reaping ; for during this period the provision is wasting, which for centuries had been accumulating. But the time

will come, and indeed in many places now is, when the land, repeatedly wounded by the plough-share, and exhausted of its richness, shall be too weak, of itself, to make plants grow with their former luxuriance. This may be called THE AREA OF SYSTEMATIC AGRICULTURE, when mentaking the earth from nature's hand, bare of manure, is so to manage and dispose it artificially, that it shall yield him first a subsistence, and then an overplus to grow wealthy upon. How far art may go in this species of improvement is yet unknown, as the *ultimatum of fertility* has never yet been reached. As far as experiments have been made, we find the earth liberally affording its produce, in proportion to the labor and skill bestowed in its tillage; and as the ingenuity and invention of man may increase to an unknown and inconsiderable degree, so may the improvements and arrangements of husbandry keep pace therewith, until the most fruitful spot that now exists, may produce a tenfold quantity, and the land which now supports an hundred men, give equal enjoyment to a thousand."

MISCELLANEOUS ARTICLES.

ARTICLE XXV.

Remedy for Bots in Horses.

Camden, Sept. 12th, 1806.

DR. ADAMS,

IN the 4th No. of "The Medical and Agricultural Register," Dr. R. GREEN, jun. has given the "Natural History of the Horse-Bee, with a Variety of Experiments and Observations on Bots," made, hoping that they would lead to the discovery of some effectual remedy.

Mr. ISAAC HARRINGTON, of this place, who is an old Farrier, says "he has been many years in the habit of curing horses of the bots with *alum water*; and, that it has never failed with him of being effectual to detach the Bots from the coats of the horse's stomach, and to discharge them without ever hurting the horse."

"But when the bots have worked through the coats of the stomach, in which case, the matter discharged from the horse's nose looks as if it were mixed with the contents of the stomach, he cannot be cured with alum water, nor any other remedy; and, if it be then given to him, he dies immediately; but, if

given before the bots have worked holes through the coats of the stomach, the horse soon recovers, and after a few hours begins to discharge the bots; and, if he has worms, they also are brought away with the bots.

"It is the larger species of Horse-Bee, which produces bots; the smaller produces only the worms.

"Half an hour before the alum water is given, in order to prepare the horse for taking it, give him a pint of milk mixed with half a pint of molasses, and give it in the same manner as the alum water is to be given.

"For this use, new milk is preferred. Then, take two ounces of crude alum coarsely powdered, dissolve it in a pint and a half of warm water, and put it into a Junk-bottle.

"Let the horse be bridled with a strong bridle, by which raise his nose, and fasten it up, by tying the bridle to something firm above. Then introduce the nose of the bottle into one of his nostrils, and pour down the alum water.

"Burnt or calcined alum or crude alum powdered and mixed with the horse's provender, will not answer the purpose.

"If a horse has worms only, bleed him in the mouth, (in the second rib of the roof,) and give him two quarts of flax-seed "

Mr. HARRINGTON affirms, "he has saved many valuable horses in the above manner, even when they were supposed to be lost.

Dr. JOSEPH HUSE also confirms him.

JACOB PATCH.

ARTICLE XXVI.

A cheap and excellent Wine.

TO six gallons of new cider, add two gallons of brandy, or in that proportion. Let the brandy be well mixed with the cider, and the cask be kept full by filling up, during the fermentation. At the end of six or eight weeks, you will have a liquor, which will not cost more than about *twenty-five* cents by the gallon, possessing much the taste and sensible qualities of wine, and inferior hardly to none.

N. B. We have frequently witnessed the above process, and provided the cask be clean (if it be new it ought to be scalded out with hot water) the cider well made, and good, be put in a cool place and the cask be kept full, it will succeed, it is presumed, to the satisfaction of those who may be disposed to make the experiment.

ARTICLE XXVII.

Receipt for curing Hams.

[From the Trenton True American.]

For twenty-four hams, take six pounds of fine salt, three pounds of coarse brown sugar, or two pints of molasses, and one pound of salt-petre pounded fine; mix all these together, and rub every ham with the mixture, and pack them down in your cask; let them remain five or six days, then unpack them, and let those which were on the top, be put at the bottom of the cask, and sprinkle a little salt over them; so let them remain for five or six days, and then make a pickle that will bear an egg, and pour over till it covers them; so let the whole remain for one month, and they will be fit for smoke. For twelve hams, use the half of the above ingredients.

Result of Meteorological and other Observations, for September, 1806; made at DEERFIELD, WARWICK, MASON, PORTSMOUTH, and SMITHFIELD, (R. I.)—For the Medical and Agricultural Register.

Sep. 1806.	Mean degs. at sun-rise.	Mean degs. at 2 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	55	72½	65½	9, & 17 ds. 86°	23d day 44°	S. 15 days			
Warwick	53	72	62½	18 83	24 36	N.W. 16 days	1	2	1
Mason	—	—	—	18 88	11 40	N. W.			
Portsmouth	56½	67	61½	9, 17, 21 80	24 42	E'dly 15 days			
Smithfield	59½	68½	65	18, 19 81	29 51	W N W & N 17d			

WEATHER.

1st day, fair, cloudy, rain at even. † 0,9	19—shower; 1,50* } 1st quarter
2 } rain, 0,95† 1,25*	20 } more or
3 } windy. 0,30† 3,00*	21 } Sund.
4 } fair weather,	22 } less of clouds
5 } flying (1st quarter,	23 } and sun-shine
6 } clouds, sometimes	24 } each day.
7 } Sunday, † 0,20.	25—cloudy, sprinkling of rain. † 0,05
8 } overcast.	26 cloudy, rain † 0,20 0,10*
9 fair, shr. at even. thun. & light. 0,20*	27 cloudy, fair. Full Moon.
10 } fair; frost on the 11th.	28 } Sunday fair.
11 } Dearf. water froze in tubs.	29 } Smith. some frost, rain † 0,10
12 rain New Moon. 0,10† 1,50*	30 rain 0,25*
13 } shower, thund. & light. 0,70† 0,50*	
14 } Sunday.	
15 } fair weather, the 17th a	Depth of water fallen in rain—War-
16 } remarkably fine day;	wick 8,30 inches.—Smithfield 3,35
17 } 18th a little	inches.
18 } smoky.	

* Warwick.

† Smithfield.

Warwick, Sept. 1806.

On the morning of the 11th, we had a hard frost on our low lands, which destroyed every green thing that was subject to its ravages, the hills remain green. Springs and streams of water are very low.

The *state of health* continues favourable. WM. COBB, jr.

Smithfield, Sept. 30, 1806.

Rivers and ponds low for the season. Grass and other vegetables, not past their season of growth, have shot forth with new vigor, since the commencement of this month; and our fields and grass lands which were parched and dry, are now covered with a new growth of verdure. Indian corn nearly fit for harvest. Pumpkins have succeeded well; and it is believed that potatoes will yield a good crop.

The whooping or chin cough is prevalent in some parts of this and the neighboring towns. A considerable number of cases of fever have occurred; though it may be considered, in general, healthy.

A SMITHFIELD SUBSCRIBER.

Deerfield, Sept. 30, 1806.

Fevers have been unusually frequent among us the latter part of the summer and in this month; these, for about twenty-five years past, have been almost unknown in this town, but they have prevailed more or less in the adjacent towns, even on high grounds. Formerly fevers were pretty certain to begin their ravages in this town in the Autumnal months; in some seasons whole families were swept off by this disease. E. HOYT.

N. B. "*A Smithfield Subscriber*," whose favors we are happy to acknowledge, is informed that his communications, if he has no way more direct, can be made to us through the hands of Mr. HENRY CUSHING of Providence. In that case it will be better that they should be forwarded early in the month.

CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS M. B.

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Medical and Agricultural Register.

VOL. I.]

NOVEMBER, 1806.

[No. 11.]

M E D I C A L.

Effects of Cold Water as a Remedy in Fever and other Diseases.

PRELIMINARY OBSERVATIONS.

A PHYSICIAN, in the exercise of his profession, oftentimes finds it impossible to render himself useful to the full extent of his knowledge and skill, by reason of the prejudices of his patient, or of his patient's friends. One says—"Doctor, don't give me *opium*." Another says—"Don't give me *mercury*." And why is it that we never hear a patient say—Doctor, don't give me RUM. Is it because fewer of the human race have been destroyed by the latter than by the former? surely no. That opium and mercury (or preparations from the latter) taken in unnatural quantities, may, in certain cases, have been productive of evil, is not denied. The same of rum we have the most abundant and melancholy proofs every day. People, however, do not break friendship with it, nor are they alarmed at the use of it. These are all, at times, very useful and necessary in the hands of those who have skill to advise, and judgment to direct to the proper administration of them.

Because *fire-arms* have been used in killing people, the "careful Mother," so we have read at school, was panic struck when "Billy" began to meddle with the gun, although he informed her there was "no lock on it." This good old lady was too ignorant of the construction and operations of this instrument to know but that under every possible circumstance and in all situations, it was a thing equally terrific and dangerous. It is the same with many intentionally well meaning people, as it respects some certain mode of practice or a particular medicine. Because that some one told another one

that such an one, was injured by it ; or, that a certain somebody, under mental derangement, or great depression of spirits, took a bottle full of it, and died ; and knowing nothing rationally of its nature and operations, otherwise than that taken in such *unnatural* quantities it may kill people, therefore, they are opposed to the administration of it, even in those forms and in such cases as daily experience proves it to be most *salutary* and *useful*. In this way, the physician, many times, is opposed, thwarted and perplexed, by the pitiful ignorance of those with whom he has to do.

What, therefore, Dr. Parkinson observes, in his "*Medical Admonitions*," is most strictly true ; that "Medical men wish not for ignorance, either in their patient or his friends ; they know that whilst exercising the duties of their profession, the knowledge of the *first principles* of medical science will always yield them the strongest aid. * * * *. The friends of the sick, possessed of this knowledge, and consequently apprized of the principles on which the physician proceeds to obtain a cure, can then more powerfully aid his endeavors ; nor is this all : they also gain a knowledge of the principles on which they ought to proceed for the preservation of their own health."

To diffuse this knowledge of the first principles of medical science is one object of this publication ; it is more especially so at the present time, in the notice we now propose to take of the "Medical Reports" of Dr. CURRIE.

*"On the effects of Water, cold and warm, as a remedy in
Fever and other Disorders."*

The subject was introduced in the last No. of the Register, through the favor of a communication from Dr. COFFIN, in which the true theory of cold bathing and water-drinking was briefly illustrated ; and those who wished to be further informed on these subjects, were referred to the "Medical Reports." But as these are subjects of such great importance, in some understanding of which, every person is in a measure interested ; and as it is probable this work,* comparatively speaking, will fall into the hands of but very few, excepting medical men, therefore, it has been thought proper to take some further notice of it here. There is still another consideration urging to this duty ; which, however, is implied in the observations before, and which is, that the practice recommended by Dr. CURRIE is so much in opposition to the notions and preconceived opinions of mankind, generally, that were a phy-

* There is a small and cheap abridgment of this work, printed by M^r EDDES, of *Augsburg*, well suited for the use of families.

fician, under proper circumstances, to recommend it, so long as people are unacquainted with *facts* and the principles which regulate it, he would be likely to meet with the most extreme opposition. What, for instance, would people, in many places say, were a physician to take his patient, burning with fever, out of bed, strip him naked, and pour over him *four or five gallons of cold water*? Yet this has actually been done and with what success the "Medical Reports" inform us.

"Dr. WRIGHT, while on a voyage from Jamaica in 1777, being attacked with fever, on the third day of it, ordered three buckets of salt water to be thrown over him, which gave him *instant* relief; and this being repeated on the two following days, removed every symptom of disease. Another passenger, whose attack from fever had began on August 9, copied the example and was restored to health. A seaman, who originally communicated the fever to Dr. WRIGHT, refusing proper assistance, died.

"In December, 1787, Dr. CURRIE, in seven cases of contagious fever,* threw cold water from a bucket upon the body of each patient; and the whole recovered. An eighth patient died, with whom the practice was omitted. In 153 cases of which the Doctor kept a register, *the cure was chiefly entrusted to this remedy.*

"The 30th regiment of British infantry, in particular, while quartered at Liverpool in 1792, afforded him an opportunity of trying this application with some precision. * * * *. The number infected in the whole was 58, of whom 26 had the disease in this way *brought suddenly to a close*; but in the remaining 32 it ran its course. It was fatal, however, only to two, who had been weakened by visiting the West-Indies and by being bled, and who besides *had not received the cold aspersions*, not having been visited by Dr. CURRIE till the 12th or 14th day of the disease."†

There are, however, certain precise and definite rules of the utmost importance to be noticed, which ever ought to govern and regulate this practice.

"The safest and most advantageous time for using the aspersion or affusion‡ of cold water, is when the exacerbation [fever fit] is at its height, or immediately after its declination

* It is what in popular language is called the *Nervous Fever*, and where particular symptoms prevail, the *Putrid Fever*, being the common fever of England, of which the Doctor is here speaking.

† These quotations are from the *Abridgment*, noticed in a preceding note.

‡ By *aspersions* or *affusions* the author means the pouring of water upon a patient, as for example, from a bucket.

is begun. And this has led me almost always to direct it to be employed from six to nine in the evening ; but it may be safely used at any time of the day, *when there is no sense of chilliness present, when the heat of the surface is steadily above what is natural, and when there is no general or profuse sensible perspiration.*—These particulars, observes the Doctor, are of the utmost importance.

“If the affusion of cold water on the surface of the body be used during the cold stage of the paroxysm of fever [in popular language, when the fever fit is off] the respiration is nearly suspended ; the pulse become fluttering, feeble, and of incalculable frequency ; the surface and extremities become doubly cold and shrivelled, and the patient seems to struggle with the pangs of instant dissolution. * * *. This remedy, therefore, should never be used when any considerable sense of chilliness is present.

2. “Neither ought it to be used, when the heat, measured by the thermometer, is less than, or only equal to the natural heat.

3. “It is also necessary to abstain from the use of this remedy when the body is under profuse sensible perspiration. * * * After the sweating has continued some time and flowed freely, especially if the body has remained at rest, either the affusion or immersion is attended with danger, even though the heat of the body, at the moment of using it, be greater than natural.”

The cold aspersions, Dr. CURRIE further observes, “cannot be employed too soon after the first attack, provided the original chill is over, and the hot stage is fairly established.”

On the first and second days of fever, the disease often instantly vanishes with one aspersions, and sometimes on the third, but on the fourth day this is rare. Each aspersions, however, instantly removes the symptoms, and a few repetitions of it, on the successive returns of the paroxysm, in two or three days happily terminate the disease, with none or trifling aid from medicine.

After each aspersions, the body being hastily dried with towels, the patient is put to bed, when a gentle diaphoresis or sweat breaking out, he usually falls into a calm and quiet sleep.

“The cold affusion generally reduces the heat from 2 to 6 degrees of Fahrenheit’s thermometer, and the pulse sinks by it from 2 to above 20 beats in the minute.

“After a number of days in the progress of fever, the cold affusion is to give place to the tepid, [warm] and the tepid affusion in various cases is to give way after a time to moistening and washing the body.”

"Though the patients were often startled at the first proposal of dashing the cold water over them, yet, after one trial, there was seldom any difficulty in persuading them to have it repeated. The effects were in general highly grateful and refreshing to their sensations. * * * *. At first I used fresh water; afterwards fresh water mixed with vinegar; and lastly, a saturated solution of sea-salt in water.

"When the affusion of water, cold or tepid, is not employed in fever, benefit may be derived, *though in an inferior degree*, by sponging or wetting the body with cold or warm vinegar or water."

Such are some of the leading doctrines contained in the "Medical Reports." Physicians will not content themselves with this brief sketch of the work; they will rather possess the volumes* themselves. This sketch, however, may serve the purpose for which it was intended; which, as we apprehend, having been sufficiently illustrated by some previous observations, is already well understood.

Here then is a remedy, which, judiciously administered, promises to be greatly successful in a disease which forms one of the widest outlets to human life; ever accessible and near at hand; a remedy, which Heaven, in its benevolent purposes, has scattered with a rich profusion over the whole earth. It runs down from our mountains; it flows in our vallies; with it our rivers are filled, and the seas are full.

The use of cold water as a bath, or sprinkling, or wetting the body with cold water, has been occasionally practised as a remedy in fever, both in ancient and modern times. Of this we have an instance in the "*bilious malignant fever*," which prevailed in the country adjacent to Dartmouth College, in the summer of 1798, an account of which, by Dr. LYMAN SPALDING, will be found in the 3d vol. of the *Medical Repository*, from which the following extract is taken.

"The most dependence was placed on the *cold bath*, when the fit was on. This infallibly gave instant and astonishing relief. * * * *. The cold bath was generally applied, by laying the patient naked upon a thick blanket, then sprinkling him and the blanket with the coldest water; the wetted blanket was wrapped round him, and suffered to remain till it became warm, when it was thrown off and sprinkled a second time, thus reducing the heat to the standard of health. The cold bath served only till the crisis of the fever; afterwards it was as distressing and painful as heretofore it was invigorating and pleasant. Many patients have been injured by a continuation of the bath after the crisis."

* Two volumes, 8vo. 3d Edition, 1805.

But the affusion or pouring on of cold water, according to Dr. CURRIE, is a preferable way. His words are "*the application should be sudden and momentary.*" But what we have particularly to admire in the *Medical Reports* is the conspicuous light reflected on a subject, which before was perplexed with contradictions and many contending facts. But the laws "*by which the affusion of cold water ought to be regulated*" being now understood, we readily see in what way these difficulties are to be reconciled. We now understand that the same remedy in the same disease, but applied at *different seasons* of the disease, shall under these different circumstances, prove to one "*a favour of life,*" and to another, "*a favour of death.*" But these laws, so says the Author, "having now been ascertained by ample experience, practitioners will, I trust, find themselves directed in safety in the future use of this powerful remedy."

For the MEDICAL AND AGRICULTURAL REGISTER.
Management of the Sick.

THERE is always much scope for the exercise of discretion in the management of sick people. This is better understood and practised in the larger towns than in the country; it is however not enough attended to any where.

I have been frequently embarrassed when seated by my patient, particularly if a female, to observe half a dozen impertinently curious spectators, who took no interest in the welfare of the sick, but were merely collecting materials for their own empirical practice, or gossiping tattle, or were actuated by some other (for such there are) more censurable motive.

A mother, an aunt, or sister, or some attendant, capable of answering inquiries and of receiving directions, and especially capable of keeping silence when she has nothing to say, should be present, and this is enough. More than once have I witnessed a sick chamber furrounded with wet eyes and gloomy faces, all directed to the sick man, just as he was waking from the frightful sleep of a feverish state.

The expression of this folly could be nothing less, at least to his timid imagination, than a persuasion in their minds, that he was about to leave the world. These intruders should be as carefully barred from the house of sickness, as should the wild religionist.

It is possible that some individuals of both these classes may mean well; but if so, they are to be thanked for the intention only, because they have not the power of doing good. The one endangers the health of the body, the other the sanity of

the mind. The former character is the reverse of that of an enlightened sympathetic friend, whose head knows how to execute the dictates of his heart; the latter is the opposite of an humane, sensible divine, who knows how to administer comfort and inspire hope, as well as to convey instruction, and enjoin obedience to the precepts of a sublime and rational religion. G.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

HAVING accidentally met with the *London Monthly Magazine* of September last, I was much pleased with the observations accompanying the "Report of Diseases;" so much so, that I have made the following *extract*, and enclose it to you, in hopes that you will think it worth a place in your useful Register.

HUMANITY.

"The *morbi infantiles* [diseases of children] appear particularly prominent in the above list. Indeed in every former catalogue which has been prefixed to these reports, the disorders of children have constituted a large and very disproportional share.

It has been estimated that one-fourth of the human race are arrested in their evanescent career of life, before the Sun which had witnessed their birth, has completed one of its annual revolutions. This surely is not an original and invincible decree of nature: with more propriety is it to be attributed to the artificial management and medical mal-treatment of children in the incipient stage of their being. These little victims awaken our compassion, perhaps the more, because they are not themselves conscious how unnecessary are the pains which they are made to suffer, and how often, by the direction of ignorance or folly, they are nursed and phyicked out of existence.

The thread upon which infantile life depends, is of so fine and delicate a texture, that, unless it be with the utmost tenderness and caution, one could not touch it without endangering its continuity.

The administration of medicine in the way that, in such cases, it is too generally applied, appears inconsistent with the most obvious and obtrusive suggestions of common sense, as well as with the precepts of an undebauched philosophy. The constantly meddling with a watch, the maker of it will tell you, cannot fail to injure its structure, and spoil the healthy regularity of its movements; and the same observation is applicable to the human machine, which in a child is equally fragile and

complicated, at the same time it is vastly superior in the dignity of its destiny, and in the incalculable importance of its organization. It often happens, that a being is scarcely born, before he is *dosed* to death. The only *draughts* which an infant requires, are those which he ingurgitates from the bosom of his mother, or inhales from the atmosphere around him.

Keep him uniformly and accurately clean, and allow him a sufficient quantity of air, nourishment, and exercise, and the instances would be rare indeed, which presented any use for the nauseous and noxious intrusion of doctors, and of drugs.

We ought to feel a painful degree of timidity and scepticism with regard to the infantile subjects of our care ; but disease, when it attacks persons of an adult age and vigorous habit, requires a more than ordinary degree of energy and decision."

AGRICULTURAL.

An Account of Improvements practised in Lunenburg on Meadow Lands : Communicated in a letter by the Rev. T. FLINT, dated Lunenburg, Nov. 10, 1806.

DEAR SIR,

IN compliance with your request, I send you a sketch of the mode of cultivating meadows, now in operation, and in progress in this town.

The meadow, or section, is first ditched, so as entirely to drain it, and to throw the fields into square, or oblong figures, marked off by ditches. Then with a hoe, constructed for the purpose, and sharpened to a keen edge, beginning in a line with the ditch, the whole surface to the depth of two, or three inches is cut off in winrows equal in width to the length of the hoe. The turf thus cut off is left to dry ; and when dried, is burned, either in winrows or heaps, as is most convenient. The whole field is then entirely free from sward, covered with a coating of peat-ashes, and as level as a garden. The ashes are spread evenly with a rake, or brush-harrow, and the field is then fitted for the reception of the seed, which is covered in the usual method. Winter rye has generally been the crop, though winter wheat, oats and corn have been successfully cultivated in this way. The meadow, after one crop, is laid down with herds-grass, which catches and thrives surprisingly. It is presumed, that the action of fire in burning the turf, penetrates to a considerable depth, and

causes a solution of the adhesive, and clayey texture of the meadow earth, and contributes with the ashes to produce the luxuriance of vegetation, which succeeds this mode of cultivation.

The man who first introduced it, had a considerable tract of deep, boggy meadow, covered with a coat of white moss, impervious to the sun-beams, and which afforded a safe retreat for the water-adder. It yielded a tall coarse kind of hasslock-grass, the spikes of triangular shape, and with edges which cut the hand if drawn rapidly through it. It was a fodder which barely subsisted young cattle, and was often dragged from the meadow, after being fished out of the water, upon a sled. In a very dry autumn, fire was accidentally communicated to the meadow, and continued to spread until the surface of an acre and an half was burned off to the depth of nearly three inches. For the sake of experiment only, and with a view to obtain fodder, he threw in twenty quarts of winter rye; the produce was twenty-eight bushels. He then commenced the mode of cultivation in question, with uniform and equal success. It is now practised upon all kinds of meadow-land, and this autumn presented us with a view of columns of smoke ascending from the low lands on every side, resembling the burning of a new country.

In the meadows which I visited the past summer, the rye was the thickest and tallest I had ever seen, and yielded, it is said, about thirty bushels to the acre. The grass upon meadows of last year's cultivation was proportionably luxuriant and heavy; and they are now estimated our most productive lands.

In the first stages of spring the uniform and vivid verdure of the rye on these level bottoms, only interrupted by the black outline of the ditches, contrasted with the faded and sickly hue of the surrounding high-lands, presents a view, indescribably beautiful and refreshing. Imagination heightens the contrast; these fields now as "the garden of the Lord," were lately tangled with useless vegetation, affording retreats for lizards, the water-serpent, and every unclean beast.

The whole process of cutting off the surface, and burning it, is perfectly simple; and the expense it is said, but little more than that of breaking up new sward. Should it gain sufficient strength by general adoption and patronage, to drain and fertilize the vast tracts of sterile meadow, from which now exhale pestilential vapors, so prolific in producing the most deadly epidemics, it will not only increase the plenty, but ameliorate the atmosphere, and contribute to the healthfulness of our country.

I am, sir, your friend and humble servant,

Dr. D. ADAMS.

T. FLINT.

Remarks.—The Gentleman will accept our thanks for the foregoing very obliging communication. The subject is very important to farmers, at present not well understood, and who therefore must be exceedingly interested in knowing every process, with the success attending it, which in different places may be adopted for the improvement of this description of lands. Our *meadows*, undoubtedly, are our richest and most valuable soils, capable of being rendered the most productive, and, at the same time, have been the most neglected of any description of lands in our country. Of late, however, the subject seems to have excited more attention. In *Groton* and *Littleton*, particularly, improvements are making of this nature. We should be much obliged to any of our friends in those places for an account of the process pursued by them for the improvement of their meadow-lands, which, we believe, differs materially from the one adopted in Lunenburg (by the English husbandmen called "*paring and burning*."). In doing this they would not only confer on us a favor, but on the community a public benefit; as the progress and success of labors of this nature will very much depend on knowing what has been done already, how it has been done, at what expense, under what circumstances, and with what success.

MISCELLANEOUS ARTICLES.

ART. XXV. *Moral and Physical Thermometer.*

THE following very curious Moral and Physical Thermometer is the invention of the celebrated Doctor RUSH, of Philadelphia, and is a most happy specimen of the ingenuity of that enlightened and consummate Physician. The Doctor assumes 0 on this scale as the divisionary point between temperance and intemperance. All above 0 is temperance; all below 0 is intemperance; and either way we advance 70 degrees, which degree at the top of the scale ranges with water, and is the highest degree of temperance, producing health and wealth. The same degree at the bottom of the scale ranges with rum, gin, brandy, whiskey, and Jamaica spirits, taken during the *day and night*, which is the lowest degree of intemperance or sottishness, the concomitants of which are, *murder, suicide, apoplexy, DEATH, and the GALLOWES!*

A more particular description of the way in which this scale is to be read and understood, it is conceived would be unnecessary. We will only observe further, that this little instrument, in our opinion, is most happily calculated for extensive usefulness; it ought to become general; and every man quitting home and his family for the grog-shop and the bottle, *without* it, ought to be esteemed equally presumptuous as the mariner who should put to sea without a *compass*.

A MORAL and PHYSICAL THERMOMETER : Or, A SCALE of the PROGRESS of TEMPERANCE and INTEMPERANCE.

LIQUORS, with their EFFECTS, in their usual Order.

TEMPERANCE.

70	WATER,	Health, Wealth,
60	{ Milk and Water, Vinegar and Water, Molasses and Water,	Serenety of mind,
50	Small Beer,	Reputation, long life, and Happiness.
40	Cider,	Cheerfulness,
30	Wine,	Strength and Nourishment, when taken only at meals, and in moderate quantities.
20	Porter,	
10	Strong Beer,	

INTEMPERANCE.

	VICES.	DISEASES.	PUNISH- MENTS.
10	Idleness,	Gout, Sickness,	Debt,
20	Peevishness,	Puking, and Tremors of the hands in the morning,	Blackeyes,
30	Quarrelling,	Bloatedness,	Rags,
40	Fighting,	Inflamed eyes, Red nose & face, Sore and swelled legs,	Hunger,
50	Lying,	Jaundice,	Alms- house,
60	Swearing,	Pains in the limbs, and burning in the palms of the hands, and soles of the feet,	Work- house,
70	Obscenity,	Dropy,	Jail,
	Fraud,	Epilepsy,	Whipping- Post,
	Anarchy,	Melancholy,	State-Prif- on,
	Hatred of just government.	Idiotism, Madness, Palsy,	GAL- LOWS.
	Murder,	Apoplexy,	
	SUICIDE.	DEATH.	

Result of Meteorological and other Observations, for October, 1806; made at DEERFIELD, WARWICK, MASON, PORTSMOUTH, SMITHFIELD, (R. I.)—and HARTFORD (Conn.)*

Octo'ber, 1806.	Mean degs. at sun-rise.	Mean degs. at 2 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	38	61 $\frac{1}{2}$	49 $\frac{1}{8}$	4th day. 80°	30th day 33°	W'dly 15 days			2
Warwick	39 $\frac{1}{2}$	58 $\frac{1}{2}$	49	1 74	23 28	N. W. 16 days		1	1
Mason	—	—	—	—	—	—			
Portsmouth	43 $\frac{1}{2}$	57 $\frac{1}{2}$	50 $\frac{1}{2}$	4 72	23 34	Variable.			
Smithfield	47 $\frac{1}{2}$	59 $\frac{1}{2}$	54 $\frac{1}{2}$	4 74	25 31	N. W. 19 days			1
Hartford	39 $\frac{1}{2}$	62 $\frac{1}{2}$	51 $\frac{1}{2}$	4 79	25 23	W. & N. W.			

WEATHER.

1st day, Smithf. people beginning to	13—rain, fair P. M. 0, 10† 1, 50‡
2 } harvest Indian corn.	14, 15, 16, 17, 18, 19, 20, 21, { fair
3 } fair; brisk	22, 23, 24, 25, 26, 27, 28, 29, { weather
4 } winds	30—Snow, began about sun-rise,
5 } Sunday. and } last quarter.	Deerf. fell 6 inches—Warw.
6 } some	8 inch. Portf. melted as fast as it
7 } clouds	fell—Smithf. depth of water in
8 } on the 4th.	snow, 0, 70—Hartf. most part
9 } foggy on the 9th.	snow and rain,
10 }	31—cloudy, Deerf. and Warw. fair;
11—fair, cloudy. new moon.	snow of yesterday mostly gone
12—Sund. cloudy, rain at even. 0, 55†	to day.

Depth of water fallen in rain—Warwick 1, 50 inch.—Smithfield 1, 25.

Warwick, Oct. 1806.

Observations. Springs and streams of water much lower than common at this time of year: the surface of the earth, however, is tolerably moist.

Our corn was considerably damaged by the frost of the 11th ult. People generally employed in the harvest about the 8th.

A much larger quantity of cider has been made than was expected. An apple-tree planted 25 years ago, by Mr. Abraham Barnes, now measuring 16 inches diameter, has this year produced him 12,500 apples, measuring 50 bushels.

Tolerably healthy for the season: some fevers of the inflammatory kind; bilious complaints, alvine fluxes, and bad colds are the prevailing disorders.

W. C.

Smithfield, October, 1806.

Springs and rivers very low. The month has been very cold; especially the latter part.

Most of our fruit and forest trees retained their verdant appearance till about the 20th of the month, when the severe frosts changed the color of their leaves: since then some have fallen; but the greater part still remain on the trees. The crop of Indian corn may be considered as short of middling; but that of potatoes as abundant.

* By the Rev. ABEL FLINT.

† Smithfield.

‡ Warwick.

State of health is nearly the same as it was last month : similar complaints having rather increased.

A SMITHFIELD SUBSCRIBER.

Hartford, October 31, 1806.

A very dry month. Springs and streams low. A fine season for the farmers to gather in an unusually abundant harvest. apples very plenty. Cider cheap.

An unusual number of frosty mornings.

Very healthy in Hartford and the vicinity.

Deerfield, October 31, 1806.

Remarks. The weather for most of the month has been very dry and pleasant. Springs and rivers are low. The frosts have been frequent and severe. Our forests are nearly stripped of their foliage ; and

“Fled is the blasted verdure of the fields ;

“And, shrunk into their beds, the flowery race

“Their sunny robes resign.”

Except a few cases of fever, the month has been tolerably healthy.

On the morning of the 30th, a snow-storm commenced, and before noon the snow fell, as near as I could determine, six inches deep. For several days preceding this storm, the weather had been warm and very pleasant, the wind at south, except the preceding day, when it was N. W.

As you have frequently inserted, in your Register, accounts of extraordinary vegetable productions, I will present you the following, which, if you think worthy, you may insert. Mr. Conider Dickinson, of this town, raised in his garden a *Red Beet*, which with the leaves weighed 26½ pounds. This beet was the growth of one season, was well proportioned and solid, and when boiled was tender and palatable ; it grew some distance from other plants, which gave it room to expand to a great size ; the diameter at top was about 10 inches. The garden in which it grew is rather dry, and is not of the strongest soil, but is generally well manured. E. HOYT.

To the PATRONS of the Register, and CORRESPONDENTS.

THE first year of the Register draws near a close. The Editor therefore avails himself of this opportunity to declare how much he feels himself obliged by the very liberal patronage bestowed by the public and his friends on this infant publication. It is now *ten* months since the first No. of the Register was published. In this short interval of time his subscribers have increased, so that the number of them at present is

considerably more than *double* what it at first was.* A circumstance no less animating, and on which he, in a great measure, rests his hopes of the future, is, *the very obliging attention, and the increasing number of his Correspondents*. He presumes to think that people will read, if gentlemen of experience and observation will *communicate*. And he hopes that gentlemen of information, the friends to agriculture, and the lovers of human kind, will be inclined to communicate, and that more generally, as they find people disposed to read, and to profit by their instruction. They have here certainly a very favorable opportunity to benefit society by their remarks. The Register now has a circulation in all the New-England States, and passes through the hands of a number of thousands of citizens. It is therefore one of the most extensive and direct channels of information to husbandmen and families, of any thing in the country. This consideration it is hoped will have its proper effect on those, who have it in their power to add something to the general stock of information on these subjects, more particularly on that of agriculture.

The trifling expense of this publication puts it in the power of almost every family to be in the possession of it. One dollar a year surely is but a small tax on the subscriber. Certainly, it is but *a very little thing* compared with what he may in this way receive in exchange for it—*the experience and the information of those who have gone before him in the broad road of practice and experiment*.

Because that all the subjects proposed in the "Prospectus" have not yet been taken up in the Register, the expectations of some perhaps may have been disappointed, and by them the Editor may be thought to have come short of his promises. But no person going into town, with but *one single dollar* in his pocket, can reasonably expect to procure a general assortment of articles on that day. And it would be equally unreasonable to expect, considering the small expense, and the limits of this publication, that all the subjects proposed to be discussed, during the progress of the work, should be taken up and illustrated the first year. Something however, it is hoped, has been offered, which may have been seasonable and useful. A single hint or observation, diligently pursued, is oftentimes to a man, the saving of much expense. Should any such, this year, through the medium of the Register, have been thrown abroad, by which the subscriber may or shall hereafter be enabled to preserve the health of one in his family, or save the life of a useful animal, or increase the fertility of a single field,

*It is however to be regarded, that the number of subscribers at the commencement of the publication was much less than that proposed in the Prospectus of the work.

in either case he will have realized many times the worth of his money.

The Editor therefore hopes his subscribers will uniformly accompany him through another year. In the mean time he assures them he is and shall continue to be diligently occupied in pursuing measures to render this publication still more interesting and useful. He is at present engaged in forming those connexions, both with private gentlemen and corporate bodies, which shall open to him the sources of a constant and a regular succession of original communications. To this end a number of the Medical and Agricultural Societies in this State have been addressed, and the following resolutions passed.

At a meeting of the KENNEBEC MEDICAL SOCIETY, held at Augusta, the 5th day of June, 1805.—Dott. DANIEL ADAMS's Communications and Proposals for publishing a "MEDICAL and AGRICULTURAL REGISTER" being read,

Voted—That this Society view with approbation an attempt to undertake so useful a work; and the Compiler may feel assured of the best wishes of this Society for his success, in collecting and methodizing the discoveries, experiments and improvements of the age, in these interesting sciences, and whatever share of patronage the infant state of our institution will warrant, shall be cheerfully afforded.

Voted—That the Secretary be directed to transmit to Dr. D. Adams a copy of the preceding vote.

Attest, MOSES APPLETON, Secretary.

At a meeting of the WESTERN SOCIETY OF MIDDLESEX HUSBANDMEN, in Groton, on the first Tuesday of September, 1805.—Dr. DANIEL ADAMS's Proposals for publishing a "MEDICAL and AGRICULTURAL REGISTER" having been read and duly considered,

Voted—That this Society receive with pleasure the communication made to them by Dr. ADAMS, and highly approve his laudable undertaking to publish a work so interesting and improving as that which the *Medical and Agricultural Register* promises to be. We know of no labor in which an individual or corporate body can be more laudably engaged, than in that of disseminating useful knowledge, particularly in the important branches of Medicine and Agriculture. We are confident the work is in good hands, and that the publisher will not fail to gratify the expectations he has raised in the public mind. We pledge ourselves to afford him every assistance within the power of this Society, not only by our communications to him, but also by using our individual influence in the towns to which we respectively belong, to procure subscribers, and give the most liberal patronage to the intended work.

Voted—That the Secretary be directed to favor Dr. D. ADAMS with a copy of the above vote.

EDMUND FOSTER, { *Corresponding Sec. to the Western
Society of Middlesex Husbandmen.*

DEAR SIR,

At a meeting of the DISTRICT MEDICAL SOCIETY, held at Worcester, on June 11, 1806, on reading a letter from you, on the subject of the Medical and Agricultural Register, it was

Voted—That the Society highly approve the object of your publication, and that they will countenance it as far as in their power, and occasionally make it the vehicle of their communications to the public.

EBENR. H. PHILLIPS, *Corresponding Secretary.*

Dr. DANIEL ADAMS.

Such are the prospects of patronage and support, which the Editor is allowed to entertain from these Societies. Meas-

ures are in progress with some of them for forming a still closer connexion ; but time is necessary in effecting arrangements of this nature, and the benefits resulting from them, it must be expected cannot be immediately enjoyed.

Further, with a view to create investigation, excite inquiry, and call forth remark, as well as to secure a regular succession of interesting communications for this work, should the increase of the subscription the year to come equal what it has been the year past ; in that case, the Editor, by the advice of his friends, will propose and publish in the Register, yearly, certain questions or subjects, to be considered as *prize-questions*, for discussion or answers, within a certain specified time ; these questions, all of them, having an immediate reference to agriculture, and such as shall come within the views and comprehension of every farmer ; and to the author of the dissertation on each subject or question, by competent judges, thought most deserving, the Editor will bestow a *premium*, to be specified and made known at the time the questions are proposed or published. This, under such an increase of patronage, the Editor finds he should be enabled to do. And as there are many towns in which the Register has not yet been introduced, such an increase of the subscription would be very natural and easy, providing it should find in those towns the same active friends and supporters it has found in other places.

To conclude. What is most ardently wished, (if the expression be admissible) is, that this publication may be rendered a *correct map of the Agriculture of these New England States*, exhibiting the different improvements and practices as they at present exist, and as they may, from time to time, occur and take place in different places. To this end, all who have it in their power to contribute are most anxiously solicited.—“ When every one contributes something, general improvement progresses ; the sum of knowledge thus accumulated will quickly resemble those extensive and fathomless waters, which were collected from a variety of small streams.”

EDITOR.

Boston, Nov. 19, 1806.

Note. Several communications have been received, which may be expected in the next Number.

CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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Medical and Agricultural Register.

VOL. I.]

DECEMBER, 1806.

[No. 12.]

M E D I C A L.

For the MEDICAL AND AGRICULTURAL REGISTER.

I AM happy to find that the Register has so extensive a circulation, and hope the time will come when the introduction of it shall be general in all our towns. Considered either in a medical or agricultural point of view, the object of it, I think, is highly important to the people of these New England States; in a medical point of view, because it may instruct them in a knowledge of the means proper to be pursued for the preservation of their own health; in an agricultural point of view, because it is calculated to excite inquiry, and does greatly facilitate and expedite the progress of improvements and discoveries in an art, which employs the hands of the greatest portion of our fellow-citizens, and which is the basis of the wealth and of the glory of our nation. It calls, therefore, for a very liberal and general support. Accordingly I do enlist myself as one of its patrons, and will occasionally make it the vehicle of such observations as circumstances and the times may suggest, provided they should be found worthy a place in its pages.

I shall at this time take notice of a very common case, oftentimes extremely embarrassing to people and to families who generally do not understand the nature of it; it is that

Of a wounded Artery, and the Measures proper to be pursued, in order to stop the discharge of Blood, till such time as surgical assistance can be had.

In doing this, I shall be led to speak of wounds generally, and of the measures proper to be pursued for stopping the blood on most occasions.

M

In the first place, then, it will be necessary to notice that there are *two systems of blood-vessels*, in every animal; one, by which the blood is conducted from the heart to all the extreme parts of the body, called *arteries*; another, by which the blood is taken up at the extremities (or by which the blood is received from the arteries, and returned back to the heart again,) called *veins*; thus making one grand and complete round or circulation of the blood. Hence it will easily be perceived that the blood in the arteries and in the veins moves in different and in directly opposite directions; in the arteries the blood is in motion *from the heart*, in the veins it is in motion *towards the heart*. The arteries beat, the veins do not; and this beating or pulsation is what is called the *pulse*. Either an artery or a vein, being cut or torn, discharges blood, but *differently*. The blood from a wounded vein flows with an equable, gentle motion; that from an artery, impetuously and by *jerk*s. This latter circumstance will always serve to distinguish whether the discharge of blood be from an artery or a vein. To prevent or to suppress the discharge of blood, either from an artery or a vein, nothing is more plain and natural; it is simply to *compress the sides of the wounded vessel together*. But now notice a very important distinction; if an *artery* be wounded, the compression must be made on the side of the wound next *towards the heart*, because, in an artery, the blood is in motion from that way; if a *vein* be wounded, the compression must be made on the *opposite side of the wound*, or on the side farthest from the heart, for a similar reason, because, in the veins, the blood is coming in, or is in motion towards the heart. Wounds in the veins are seldom dangerous, because, unless the vein be very large, the discharge of blood generally stops after a few hours, or in a less time, even if the wound be left to itself. It is not so with wounds in the arteries: the blood is crowded so full into these vessels, so forcibly is it compressed by its surrounding walls, that it is forced out impetuously through the smallest outlet: the strong current of the blood keeps the orifice open; and unless something be done to prevent it, the blood, although the artery should be small, would, in many instances, continue to flow till the life of the animal should be exhausted at the wound.

Now, my friends, let us suppose a man returns from abroad to his family with a large wound in his foot, arm, or leg, bleeding profusely; what in such cases is usually done? Why, in one moment the family are all in confusion. Molly catches the towel, and on that goes upon the wound. The mother descends immediately to the bottom of her chest, and up come the rags, bundle after bundle; these are also piled on, and

Harry is hastened away for the doctor. It may be three or four hours before the surgeon arrives. In the mean time the blood is flowing, and soon begins to run through the rags on to the floor: these are then removed, and clean dry rags are applied; and so, as often as the rags become sopped with blood, they are removed for others that are dry. Oh, astonishing! I hope I shall never see this practice among my patients again.

Know, then, that the whole of this is ill-directed zeal, and is calculated, by keeping the wound warm and covered from the air, to continue the discharge of blood, rather than to check it. Harken then to advice: have a little water and wash away the blood from the wound, and almost at the very first cast of the eye, attending to what has been before observed, you will perceive whether it be an artery or a vein that is wounded. If it be an artery, the blood will be of a bright red, flow impetuously and by *jerk*s. In that case, you will feel with the point or end of your finger, and press firmly on the edge or side of the wound, in a direction towards the heart; and when you get upon the artery, provided your pressure be sufficiently firm and steady, so as to compress the sides of the artery together, the blood will stop. Then is your patient safe. You may now command the blood, till such time as the surgeon shall come in; or, having done this, let one of the family roll together a little bunch of rags, large as a walnut or larger, very firmly and hard, and tie them round with a string; then removing your finger and slipping this bolster of rags into the place of it, press it down firmly upon the artery, till you find it stops the blood; after which, secure it in that place by a garter or bandage, passing it a number of times over the bolster or bunch of rags and round the limb: after which you may go about your business, and leave the patient to rest till the surgeon comes in. Should you not succeed in either of these ways, by reason of the artery's lying deep, or from any other circumstance, and should the discharge of blood be great, put the point of your finger directly into the wound. You will feel the current of blood against your finger, which you must follow up to the orifice from whence it flows, and secure it till the surgeon arrives to give the wound its proper dressing. Sometimes the flow of blood is most conveniently stayed by laying the open hands one on one side of the wound and the other on the other side, and pressing the lips or sides of the wound close together, and then retaining them so by a bandage.

Such are the general principles, and such the course of practice, nine cases out of ten, which ought to be pursued

in accidents of this nature. In a dissertation like this, it is impossible to be so minute as to meet every circumstance and case. The general principles, however, being understood, a common understanding, in most instances, will be able to supply what is deficient, and make such variations as circumstances and the nature of particular cases may seem to require.

OBSERVATOR.

Massachusetts, Dec. 15, 1806.

For the MEDICAL AND AGRICULTURAL REGISTER.

On the difference between a Quack and a Physician.

THE subject upon which I am now entering, I must acknowledge, deserves an abler pen; but if my endeavors should be crowned with success, I should never repent undertaking so arduous a task. I should receive my reward in seeing my fellow-men, relieved from a yoke, which they tamely submit to, although not only their property is at stake, but they are in great danger of their lives, from a set of men styled *Quacks*.

It is truly astonishing to see how they have increased for the last six years. Every public paper is filled with their nostrums; they are not confined to the cure of one disease, but to a dozen or fourteen different ones. In country towns, every tavern and grog-shop are filled with them, with certificates from men who are unacquainted with the nature of the men or the remedies they employ in deceiving mankind. Many people will sooner run the hazard of losing their lives by purchasing *patent* and *quack* medicines, than pay a regular bred Physician his fee, at the same time not thinking that they are paying their money for they know not what, and which goes to support perhaps one of the most illiterate men on earth.

It is a fact that has long been established in my mind, that a Quack will obtain business sooner than a regular bred Physician. The reason is obvious: A Quack, on entering into business, will frequent taverns and grog-shops, for the express purpose of meeting with a set of men as ignorant as himself: it is generally expected that he has some money, and it is likewise expected that he will call for something to drink; from thence he will proceed to wrestling, &c. He will there be called by those with whom he associates a "clever fellow;" for, say they, "he is not ashamed to associate with us; we will employ him, for he will not for his own interest charge as much as Doct. ——— does. If either they or their families are taken sick, he will undoubtedly be sent

for : if his patient should recover under his care, his fame will be proclaimed far and near ; and when he gets once established in business, there is another trait in his character, and which every quack possesses, viz. He will try all that in him lies to run down every person of his own profession. It is astonishing to every reflecting mind, to see to what meanness they will descend, to obtain business.

It is quite different with a regular bred Physician. If he has any modesty about him, you will not hear him sounding his own fame of the numberless cures he has performed : If he is temperate, you will not see him lolling and gaping into every tavern and grog-shop : when out of business, you will find him at his books, endeavoring to store his mind with a knowledge of his profession, which he must always consider himself as imperfectly master of.

A SUBSCRIBER.

A Caution very useful and necessary to People Chilled with Cold.

[From the Villager's Friend and Physician]

REMEMBER that, whether at work or at play, whenever the body is considerably heated or cooled, a change of that state must not be effected suddenly. A sudden exposure to extreme cold, when much heated, is so well known to be dangerous, as to require to be only mentioned here for the sake of reminding you. But a greater degree of danger is frequently produced by a practice, the ill consequences of which are not so generally known. When extremely chilled by exposure to bleak air, and perhaps to freezing sleet ; when the blood is driven from the external upon the internal and vital parts, the practice is too common to drink freely of heating and spirituous drinks, and to hover close over the fire. The blood expanding by the heat, still farther distends the vessels in which it flows, its course being at the same time rendered more rapid by the strong and heating liquors ; hence it is forced into vessels into which it ought not to flow, and there excites pain and dangerous disease.

In proof of the propriety of this caution respecting the too suddenly applying heat, after exposure to cold, I must inform you, that if any part of the body be so long exposed to the cold that it has become frozen, and, in this frozen state, be brought near to the fire, a mortification will succeed, and the part will separate and fall off. But if the heat be most slowly restored, first by rubbing it with snow, then with water, then with a dry cloth or flannel, and lastly by

allowing it to be exposed to warm air, *it will speedily be restored to its healthful state.*

From what I have said, it may be inferred, that similar caution should be employed in restoring the warmth of the whole body, when chilled. The clothing, if wet, should be changed, and either moderate exercise should be persisted in until the heat is again restored, or the approach to the fire should be gradual. If the exposure has been long and the cold severe, it will be best to go to bed, and drink freely of moderately warm barley-water or gruel, by which means heat will be gradually restored, and all dread of disease removed by a free perspiration. He, who wishes to get rid of life in severe agonies, should, when thoroughly wetted and chilled, dry himself by the fire and toss down a glass of spirits. It may be true, that many of you have done this repeatedly, without having sustained any injury; but that is no reason why you should persist in that which a little consideration must show you is certainly dangerous. This you may be assured of, that there would be less chance of injury from allowing the wet clothes to dry on the back, whilst continuing in exercise, than thus suddenly to expose yourself to heat, and to drink of spirituous liquors when chilled with cold.

Hæmoptysis; or, Spitting of Blood.

DR. ADAMS,

UNDER a full conviction that the theory of hæmoptysis [spitting of blood] as it affects delicate and debilitated subjects, often the approximate cause of an absolute consumption, is erroneous, and the practice resulting from it injurious, I am induced to submit to your inspection the following observations, with the request, that, if deserving, they may find a place in your Register:

The general and increasing prevalence of consumption, with its almost certain fatality, calls loudly for the exertions of every one who has pretensions to the healing art. Leave, then, the theory of the ancients; believe that medicine may still admit of improvement; countenance a theory that may be apparently founded on rational principles; cut off one great source of this most formidable complaint; rid the profession of the stigma too justly attached to it, imbecility; and strike one blow at the root of empiricism.

The cause of hæmoptysis is almost universally attributed to the rupture of a blood-vessel, the consequence of plethora [ful-

ness of the vessels.] The absurdity of the opinion is apparent in almost every instance which occurs, as the pale, delicate and debilitated are invariably the subjects of it, unless produced by external violence. Should a healthy muscular man, in attempting to raise a heavy weight, be attacked with hæmoptysis, no one need hesitate in saying that the discharge issued from a ruptured vessel, and that depletion [bleeding, &c.] would be admissible, and even necessary, to obviate inflammation, that might naturally ensue. But, should a delicate, debilitated subject be attacked, without any ostensible cause, perhaps in the night time, (when there is an entire suspension of voluntary motion) with spitting of blood, would any one attribute it to a ruptured vessel, the consequence of plethora?

Once admitted that the veins are not a continuation of the arteries; that there is space between the extremity of the artery and mouth of the vein; that the blood, after being propelled by the force of the arteries to their extremities, is taken up by the veins by an absorbent power, (and it is proved to a demonstration, "because there is no pulsation in the very beginning of the veins, as is seen by microscopes, which must happen if the blood was carried into them by the actions of the arteries;") and the cause of hæmoptysis is obvious.

"If any branch of the venous system lose its power of absorption, the part swells, and at length bursts and discharges the blood, which the capillaries and other glands circulate through them." Away, then, with the pernicious theory of a "phlogistic diathesis, the necessity of refrigerants, of confinement, bodily rest," and the whole routine of debilitating medicines, the offspring of folly and old women. Substitute in lieu of them, venesection once; "as one great mean of promoting the absorption of any fluid, consists in previously emptying the vessels which are to receive it;" emetics, opium, epispastics, foxglove, chalybeates, the bark, &c. which promote venous absorption without increasing arterial energy; moderate exercise, and a generous diet.

C. D.

AGRICULTURAL.

Propagation of the Peach Tree

DR. ADAMS,

I HEREBY transmit to you the best mode of propagating the peach tree, and of preventing its early decay.—The kinds most worthy of notice are, as they are usually called, the *Rare-ripe* and the *Melacatoon*. Stones from the best of these

should be chosen and planted in the last of October, on a soil neither very rich or very poor. If the soil be very rich, the bark will crack, and the gum issue out, leaving a place for the embryo of the worm, so destructive to this fruit tree: if the soil be very poor, they will never come to maturity. As soon as there is any appearance of gum near the top of the ground, scrape it away, and immediately after cleared off, take some *bleached ashes* and rub them in with your hand, and fill all the crack or cavity with them, as that prevents the insect or fly from depositing the egg, which produces the worm in the roots of peach trees. I have seen worms an inch long in a small peach tree, in the nursery, of not more than an inch and a half diameter; they are found in the pith, about three or four inches below the surface of the ground. If proper attention be paid to taking away the gum, and filling the cavity with bleached ashes, putting earth round the tree on top of the ashes about three inches deep, few trees would decay till a great age for this kind of tree: they are a short-lived tree at best, and must have considerable attention paid them.

When you use manure for cultivation, take that from the horse-stable. Plough and hoe your peach orchard, until the trees are three years old. Prune them in April, annually, and saw off the limbs and sprouts rather than chop them off. Never neglect your trees in July and August, to see whether the gum is not issuing out, to give the insect an opportunity to deposit its egg or maggot, to form the worm.

I have not yet been so fortunate as to make such a discovery of the insect or fly, which produces the peach tree worm, as to be able to give an account of its progress through all its changes. The worm appears of a whitish color, with circles round the body resembling joints, varied in size on account of the size of the tree; a large tree will have a much larger worm than a young and smaller one. They will gnaw the main root, and soon the part begins to rot and decay. Sometimes smaller roots suit their residence, but the main stem is their object; like the vital part of man, the pith of the tree being injured, soon affects the system at large. As the bark cracks, and the gum issues out, the animalculæ being placed there, the worm will grow; the bark now will close over, and the worm remain there years, if the tree does not wholly die.

WILLIAM MORSE.

Northborough, September, 1806.

Chicory.

DR. ADAMS,

HAVING lately noticed in the Domestic Encyclopedia a description of a certain species of Endive called *Chicorium Intibus*, and having mentioned it to some of my neighbors, they appear extremely anxious to get some of the seed, in order to prove its utility. I have lately seen a proof (in deed as well as word) of your regard for the improvement of agriculture. This induces me to apply to you for a sufficient quantity to make an experiment. Whether there is any of the kind in America is unknown to me; it appears however that it is made great use of in Europe, and might be obtained with a little trouble. Should it produce equal to the account given in the above named book, its value in this cold country would be incalculable. By complying with the above request, you will greatly oblige the farmers in Buxton, and perhaps many more.

A CUSTOMER.

Buxton, October 26, 1806.

* * * * *

Remarks. The *Chicorium Intibus* (*Chicory*) another name for which is *Succory* (See vol. v. page 63, of the Domest. Encyc.) is a plant growing in this country. A gentleman in Boston received some of the seed, some time since from Europe, and had it sown on his farm in the vicinity of the town. It caught readily, and grew luxuriantly; it will afford a number of crops in a year; horses feed on it well while green; but it is not good for any thing to make into hay. The opinion of this gentleman is, that it may answer well in England which is a *foiling** country; but that the cultivation of it cannot be an object with the American farmer, and that if introduced, there would be danger of its rooting out his better grasses.



ON THE IMPROVEMENT OF WORN-OUT LAND.

By deep Trench and frequent Ploughing.

Communicated to "Blockley and Merriam Society, for promoting Agriculture and Rural Economy."—By RICHARD PETERS, Esq. President of the said Society.

WHEN I took the liberty of pointing out defects in our mode of farming, I promised to use my endeavors to suggest remedies for evils, which I wish prevailed only in our neighborhood.

* In England, horses, &c. are fed in stables with *green* fodder, cut and brought in from the field, and this is what is understood by *foiling*.

Exceptions are happily to be met with ; but the style of agriculture, under similar circumstances, is too much alike every where. It is the more unfortunate, as most of the inhabitants of exhausted lands, seem to be the least ingenious and industrious, in calling to their assistance system and experiment, although they stand the most in need of them. It would seem, that, as to them, the old adage, "Necessity is the mother of invention," could not apply. Their spirits, and consequently their exertions, seem to fail them, and to be exhausted, in proportion to the degrees of impoverishment attending their soil. Even the industrious sow much and reap little. As long as those, who possess it, can clear a piece of new land, they apply themselves to that, and abandon the greater part of the residue of their farms to what they deem unconquerable poverty. If you inquire the reasons of their negligence, they will assign any but the true one—"They have not stock enough to make manure ; they have not strength enough to work much land, and must therefore work that which yields the most ; they have not money to purchase the means of re-invigorating their farms."

The fact is, that their not making the necessary and proper application of their stock and strength is the cause of the latter misfortune, which includes the rest. If their stock be small, it requires the more attention to produce profit ; and if their strength be not great enough for two acres, let it be applied effectually to one. They will find their affairs in this case mend as by magic. Their expenses will be less, and of course their profits greater. Their labor will have a limited, and consequently, a practical object. Savings in wear and tear of implements, of seed, of expense in wages ; of expenditure to mechanics, with all the consequences of cultivating a small portion of land well, will immediately follow. They will not fail in the accomplishment of their object ; but they will cease to bring themselves in debt by misapplied endeavors to avoid it. They will find, too, their one acre, well cultivated, more productive than many, in the old routine of mismanagement. The difference between a highly improved acre, and one even beyond mediocrity, is greater, than at first view, it would appear to be. In England, the proportion between land producing five quarters, and that bringing three quarters per acre, is often more than two to one ; yet the produce is not double. But after labor and expense, which are the same in both, the excess is profit ; and the tenants, at the highest rents, clear the most money, and become rich, while it frequently happens that the others become bankrupts.

These observations are the most applicable to those, who, like ourselves, have their lots cast in a country exhausted by

bad tillage. With good and systematic culture, our situation would have been very different. Under good management, our lands would still have continued fertile and we should not possess them in their present miserable state. The following remarks are intended to elucidate and confirm my observations on the "defects in our mode of tillage."

One would think that the bare recital of the common mode of preparation for wheat, would sufficiently point out the evil and the remedy.

In general, the sod is turned or broken up in the spring, at the most four, but more frequently less than three inches deep. The sod is composed of a small proportion of grass-roots. The roots of permanent and noxious weeds occupy the rest. The seeds of these weeds, both annual and perennial, have been dropping for years, ready to vegetate with the first stirring of the earth. In this wretched situation it is ploughed most wretchedly, because superficially, and left without harrowing two or three months. It is then crossed; at the season of sowing, harrowed; the seed is then plowed in, and thus committed to this miserable mass of clods, unbroken in the whole, or in part. In this mass are contained undecayed roots of weeds and vegetating blue and other unconquered fibrous grasses, which, unlike tap-rooted grasses, such as clover, are pests, and not assistants to grain. The seed is then left to take its chance. A crop of indian corn, a great exhauster, is often taken in the season of sowing the grain.

This is a true statement of the general practice. Now can it be supposed, that a plant, such as wheat, (which will penetrate three feet, if the soil permit, and whose horizontal roots have been measured ten feet) will perfect itself in a depth of three or four inches, and in a collection of clods, tussocks of weed roots, and increasing mares of blue grass, which will prevent the extension of its roots and fibres?

Indolence makes large demands upon ingenuity, to furnish it with excuses. Some plausible reasons are brought forward to support every bad practice. I have heard it alleged in conversation, and have met with a treatise on St Foin (the most extensive rooted vegetable) that "plants should not extend their roots too far, or they will spend themselves in root." As if nature was not too wise to suffer an injurious disproportion in the parts of her productions. Roots are to vegetables (as in that treatise it is observed) what the intestines and stomach are to animals. The more and the longer these are, being always proportioned to the body of which they are parts, the more and the greater the supplies of nourishment received and communicated.

The remedies I will recommend for the evils I have enumerated, are, *deep trench, and frequent ploughings*. I have had much experience of the good effects of these on lands, as much impoverished as any in this country. I have therefore, no occasion for authorities to satisfy myself: but I will quote one instance among many which might be produced. The celebrated Chateauvieux, a philosophic and an attentive cultivator, selected a piece of ground, from which he had taken the soil three feet deep, leaving only a sterile whiteish clay. By digging and stirring this spot, he brought it in three years to bear wheat without manure, as large and as fine as any his garden could produce. This shews that earth supposed barren, can be made by stirring, separating its parts, and exposure to the influences of the air, as productive as the original surface. It fully answers the objection to deep and trench ploughing, of turning up barren earth; for most earth may be made thus fertile.

Miller also affords instances in proof, from the practice of the gardeners about London. They trench their grounds, when they begin to be exhausted, three feet deep, turning the original surface to the bottom.

(To be concluded in our next.)

MISCELLANEOUS ARTICLES.

ARTICLE XXIX.

Bills of Mortality.

A NUMBER of bills of mortality have been received, to which we shall hardly be able to do justice, for want of room. The *particularity* of these and similar bills, (bills embracing a series of years back) together with the topographical description of places, are rather tedious to many of our readers, and are complained of by some. We do therefore relinquish our purposes respecting such bills; but, in no degree as it respects a *yearly bill of mortality*, for this or any of the other States. We are therefore extremely anxious, still, that our solicitations expressed in a note addressed to Clergymen, in the first No. of the Register, should be *seasonably* complied with in their full extent.

From bills before us we are enabled to give the following information.

	No. of Inhab.	Deaths.
Deerfield,	1531*	266 in 14 years, ending with the year 1805.
Warwick,	1233	78 — 5 years.
Ashburnham,	995	336 — 37 years.
Princeton,	1021	65 — 4 years.

Deerfield. Of this number (266,) 155 were under 10 years of age; 4 were upwards of 90 years.

Warwick. The dysentary was epidemical in this place in the autumns of 1802 and 1805, of which 19 of the above number (78) died; of consumption, only 6. Dysentary, for the 5 last years, has been much more mortal in this place than any other disorder. Warwick is situated seven miles east of Connecticut river; near the centre of the town is a mountain of 650 feet elevation; considerable quantities of iron ore are found in this town, of an excellent quality.

Ashburnham. Above half of the above number (336) died under 5 years of age. Ashburnham is on the height of land between Connecticut and Merimack rivers. No mortal sickness, except canker-rash and dysentary, has ever prevailed in this place; and these not to any great degree.

Princeton. Dysentary was epidemical in this place, in the autumn of 1805, of which, in the last 4 years, 18 have died; 4 only have died of consumption. The average age of those who have died, deducting premature births, is twenty-seven years and three months. The births in 1804, were 36; in 1805, they were 42.

ARTICLE XXVII.

Result of Meteorological and ther Observations, for November, 1806; made at DEERFIELD, WARWICK, PORTSMOUTH, SMITHFIELD, (R. I.) HARTFORD, (Conn.) and BOSTON.

Nov. 1806.	Mean degs. at sun-rise.	Mean degs. at 2 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	32½	44½	38½	9th day. 58°	19 & 20 21°	N.			1
Warwick	30½	43½	36½	9	67	20	18	N.W. 17 days	1
Portsmouth	31½	45½	36	9	60	22	27	N. E.	
Smithfield	34½	43½	40	9	59	4	20	N. W.	
Hartford	32½	47½	40	9	62	20	17	N. & N. W.	
Boston	27½	47	42½	9	61	4	27	N. W.	

* As taken by the census, 1800.

WEATHER.

1st day		16—	Sund. snow (in water 0, 15†) 6,00*
2 } Sund.		17 }	fair and cloudy alternately ;
3 } fair	☾ last quarter.	18 }	squalls of snow, ☽ first quarter.
4 } and		19 }	fair and pleasant.
5 } pleasant		20 }	
6—	fair ; sprink. of rain at night	21—	fair, cloudy, sprink. of rain
7—	rain 0, 25† 2,00*	22 }	fair, some clouds
8—	showers 1,50*	23 }	Sund. Smithf. a little rain 0,20†
9 }	Sund. flying clouds, high winds,	24—	snow and rain 2,00*
10 }	showers in some places. new moon	25—	fair Full moon.
11—	fair	26—	cloudy, a little rain 0,10†
12—	moderate rain 0,20† 0,10*	27—	cloudy, snow 9,05†
13 }	fair	28—	cloudy, misty
14 }		29—	cloudy, thick mist 0,30*
15—	snow, hail, rain, 0,25†	30—	rain.
Depth of water fallen in rain—Warwick 4, 10 inches, snow 6 inches.			
in snow and rain—Smithfield 1,55 inches.			

Smithfield, November 30, 1806.

The season of vegetation being past, nature seems to present but little for observation except meteors, vapors, clouds and storms.

We have had much cloudy disagreeable weather this month ; but no very severe storms. The most considerable storm here, commenced on the 15th inst. in the afternoon, with moderate rain and wind at east, which shifted to the north in the night, when we had hail followed by snow, which continued moderately during the next day and night, with a little snow followed by a thick mist on the following day and night. State of health, about the same as last month ; there being a continuance of similar complaints ; though perhaps not an increase.

A SMITHFIELD SUBSCRIBER.

Hartford, November 30, 1806.

The 15th and 16th a storm of rain and snow ; snow fell to a considerable depth in some places. Thunder shower on the night following the 7th. A heavy rain the 26th and 27th.

Deerfield, November 30, 1806.

Remarks. The month has been dry, springs continue low : the little snow which has fallen has soon melted, and the ground is still bare, except in the hilly parts of the country.

No uncommon sickness has prevailed this month : the season is as healthy as usual.

If the following, taken from the European Magazine for 1805, does not offer any pecuniary advantage to the butcher, it would

* Warwick.

† Smithfield:

afford consolation to the humane to see practised a method which so suddenly suspends the vital functions, in slaughtering cattle.

"The practice of *slaughtering cattle* by puncturing the *medulla spinalis*, or as it is now called, *pitthng cattle*, is extending through all parts of the kingdom (Great Britain) by the perseverance of the Board of Agriculture. The want of skill in the operation, and the prejudices arising from established customs, we are sorry to observe, however, render the system less general than it should be. It is perfectly ascertained that the spinal marrow may be divided without immediate death, should the wound be inflicted *below* the origin of the nerves that supply the diaphragm, and allow the animal the power of respiration; but if the puncture is made into the cavity of the skull, so as to divide the medullary substance *above* the origin of these nerves, death is instantaneous, and without the least apparent sensation of pain. If a line be drawn across the head from the root of each ear (about an inch and a half from the horns) the center of this line is the spot in which the puncture should be made, and an awl or a common penknife is as good an instrument as can be used."

E. HOYT.

N. B. We have to acknowledge the favor of a number of valuable communications, which were received too late for this No. they will appear in our next.

A brief INDEX to the REGISTER for the year 1806,

[Some of our readers have expressed a wish that a short Index to the Register might be given at the end of the first year: we are disposed to gratify them; in doing which, it is presumed, we shall not disoblige others.]

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CONDITIONS OF THE REGISTER.

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Medical and Agricultural Register.

Vol. I.]

JANUARY, 1807.

[No. 13.]

MEDICAL.

For the MEDICAL AND AGRICULTURAL REGISTER.

Catechism on Rum.

Question. WHAT is the chief end of RUM?

Answer. The chief end of rum is to make toddy, flip, and punch.

Q. What are the comforts which Tipplers receive from toddy, flip, and punch?

A. The comforts which Tipplers receive from toddy, flip, and punch, are, ease of conscience, joy in the comforter, increase of love thereto, and perseverance therein to the end.

Q. Wherein consisteth that EASE OF CONSCIENCE, which Tipplers receive from toddy, flip, and punch?

A. That ease of conscience which Tipplers receive from toddy, flip, and punch, consisteth, in a forgetfulness of the past, a beastly enjoyment of the present, and an indifference towards the future.

Q. Into what state will the love of Rum, and an inordinate use of it, bring mankind?

A. The love of Rum, and an inordinate use of it, will bring mankind into a forlorn and wretched state.

Q. What are the evils which in this life do either accompany or flow from an habitually immoderate indulgence in the use of Rum?

A. The evils which in this life do either accompany or flow from an habitually immoderate indulgence in the use of Rum, are, sickness, shame, poverty, and distress.

Q. When shall the end be?

A. When the Hard-Drinker shall have wasted his estate, ruined his constitution, and alienated the affection of his friends;

when you shall see his affairs falling into ruin and decay, his children hungry and naked, his wife comfortless and in tears; when you shall see all these things, then know that the end is nigh, even at the door. Loss of appetite, a bloated visage, trembling hands and feeble knees, are but faint indications of the sufferings he feels within. Beastly, sottish, debased in reason, and vile in manners, he sinks from the character of a man to the grade of a brute. All who once knew him, now pass by; his friends neglect him, diseases torment him, executions vex him, creditors teaze him, sheriffs seize him; still nature, oppressed and overcome by continual injuries, at length resigns her worthless charge, and he sinks unlamented to the grave.— Surely, it is an evil way, and the end thereof is sorrow.

O ye, who sacrifice to Bacchus, who make yourselves merry with the jolly god, and in sparkling oblations quench life's transient blaze—better is a *little* of the juice of the apple than much ardent spirit—more reputable is it with *cattle* from the *same fountain to drink water*, than to crack bumpers with "*high bloods*," and *roll in ditches with swine*! Harken then unto wisdom, and let her voice be heard; cleave thine ear to understanding, and be wise. *No more spend the day in riot, nor the night in excess.* Let industry employ thy hands, at evening rest thy cares, and in the morning awake to peace and the sweet enjoyment of domestic delights. Then shalt thou gladden the heart of thy spouse; thy *little ones* shall rejoice, and plenty again shall crown thy board. Thy olive shall yield its oil, and thy fig tree shall be neither barren nor unfruitful. Then shall comfort spring up by you, and health shall come and make its abode with you; want shall flee away, nor shall poverty even dare to look in at thy windows. In thy neighbor's mouth thou shalt have a *good report*, and thy life be honorable: friends shall multiply, and thy days be pleasant, yea, all the days of thy life.

OBSERVATOR.

Massachusetts, January 14, 1807.

For the MEDICAL AND AGRICULTURAL REGISTER.

The Abuse of Tobacco.

TOBACCO is a poison whose character is understood by few, while the practice of smoking or chewing it is adopted by many, without thought or reflection. I contend that it is a real poison; and that its effects, when chewed or smoked, are

uniformly narcotic and debilitating. To this it will be objected, that many smoke or chew, at least, without sensible injury. This fact, when explained, militates nothing against my doctrine.

It is well known that many poisonous substances, as opium, tartarised antimony, cicuta, nitre, ardent spirits, &c. are occasionally exhibited as medicines; and when so exhibited by the judicious physician, are justly entitled to rank among the articles of the *materia medica*. It is not less known, that numerous substances of this class, when habitually taken in small quantities, cease to act as evident poisons, or to disgust the palates and stomachs of those who swallow them; though to an unvitiated taste, and to a natural healthy body, they are highly nauseous and deleterious. It must, however, be remembered, that this security from habit is only apparent, and that this principle of accommodation in the human system cannot change the nature of narcotics to that of nutriment.

If the body has the power of supporting, with diminished pain, the continued pressure of a certain degree of physical evil, and the mind to become placid under the continuance of a moral evil, which at first seemed insupportable, it only proves the benevolence of that Being who has thus fitted us to pass more happily through the present mode of existence, while it can be no impeachment of his justice to believe, that an abuse of his goodness cannot be indulged with impunity.

If, then, it be the invariable tendency of smoking, to lessen health, as I assert it is, and if there be such a state as too great vigor or health, it then becomes one means of curing this inconvenience; and the advocates for the salutary effects of this practice will deserve praise by confining their recommendation of its trial to this state only,—if any one of their number can be found sagacious enough to ascertain its existence.

I am very sensible, that the use of tobacco, in one form or another, has always had its advocates; and the plant, detestable as it is, its numerous votaries. The goddess *Nicotiana* can in our time boast of more worshippers and devotees, in Europe and America, than ever could *Proserpina* of Sicily, or the Egyptian *Isis*; and however much they may suffer in the cause they espouse, they seem not the less attached to the object of their devotion.

On those who plead the strength of habit as an excuse for continuing in error, I can hope to make no impression; but for those who have not yet consented to imitate the many examples of this injurious custom, for those who are willing to be guided by reason, and for those who are wise and resolute enough to sacrifice a transient and debasing propensity, to secure

the important blessing of health, I should be happy to contribute any thing to lessen the practice of using tobacco in any of its forms.

The few individuals, whose gross and phlegmatic constitutions have from habit become insensible to the hurtful effects of smoking, imagine it can harm no one else, and accordingly *recommend* it to all their associates. It is probable these people intend no mischief, but their error consists in making their own constitutions a standard for those of others, who could not adopt their practice without great injury.—It would not be difficult, and it may be useful, to point out some of the causes which tend to keep the real history of the effects of tobacco out of sight.

One of these is, that in many cases where its use is seriously pernicious, its effects are so gradually produced as to escape the notice of the sufferer, while all his complaints are ascribed to other causes. Another is, an ambition to be thought consistent in those who, sensible of its baneful consequences, continue the use of tobacco from a subjection to habit.

I would ask those who are still hesitating respecting the nature of smoking, if in their turn they are willing to become the father, who, with the segar in his mouth, earnestly remonstrates to his sons against a practice to which he confesses himself a slave; which has already undermined his health, and which reluctantly he permits, emaciated and consumptive, to hurry him to his grave? This is no fiction; I have twice witnessed a similar scene, and were it proper I could now present a recent instance of this fact to the public. There are some individuals in society, who have once been strongly attached to the use of this plant, and who have tried it in various ways, but with effects so unpleasant and distressing as to induce them wholly to abandon it. The counsel of these *men of experience* is recommended to those who are now trifling with the pipe, and imperceptibly becoming fond of it. G.

For the MEDICAL AND AGRICULTURAL REGISTER.

Case of Recovery from apparent Consumption; communicated in a Letter, by ELIPHALET LYMAN, M. B.

DR. ADAMS,

If you think the following history and observations worthy of a place in your useful Register, you will please to insert them.

T. H. aged fifteen years, of a slender constitution, with light hair and light eyes, after riding a journey in the rain, in July

past, was immediately attacked with a violent cough, difficulty of breathing, and pain in his right side, attended with fever. In this situation he remained for a number of weeks, before medical assistance was called.—After a thorough examination, I was fully persuaded the disease termed phthisis pulmonalis [consumption] was seated upon him, and had made such ravages upon his lungs that he must inevitably fail soon. The symptoms grew more and more aggravated for a number of weeks; expectoration was very copious; debility very great; hectic fever quite regular; together with diarrhœa, swollen legs and feet, and sunken eyes; in short, the last symptoms of that terrible disease were notorious to all that saw him, and death was hourly expected to close the scene. But, remarkable as it may be, his cough ceased almost instantly, respiration became less laborious, and the emaciated youth began to amend, and by slow degrees has gained an entire and perfect state of health, even better than he ever enjoyed.

The peculiarities attending this case, induce me to make a few observations and queries. No symptoms were wanting that usually appear in phthisis pulmonalis; no symptoms uncommon, excepting the fixity of pain in the right side. The remedies applied were those commonly used in such cases, and with as little hopes of success. Until within a short time previous to his becoming convalescent, he was obliged to lie wholly on his right side. Symptoms which I observed, induced me to believe that there was an adhesion of that part of the lungs which is situated on the right side of the mediastinum,* to the pleura. I made external applications accordingly. Immediately previous to the cessation of his cough he expectorated very large quantities of matter, resembling the substance of the lungs, mixed with pus; the pain in his side ceased some time previous to this copious discharge.

Query—May this be properly termed a case of phthisis pulmonalis? If it is, must we not conclude that a portion of the lungs was wholly destroyed, and that the remainder are left entire? Was the whole of the right lobe destroyed, or in part? The above queries it is hoped will receive elucidation from the pen of the philosopher, through the medium of the Register.

ELIPHALET LYMAN.

Fryeburg, (Maine,) November, 1806.

* A membrane which stands in the middle of the breast, and divides it into two cavities; the *pleura* is that membrane which lines the internal cavities of the breast.

AGRICULTURAL.

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### *Critical Observations and Experiments on Gypsum, or Plaster of Paris, as a Manure.*

*Providence, 12th of 12th Month, 1806.*

DR. ADAMS,

**O**BSERVING thy note in the second number of the Medical and Agricultural Register, on the use of gypsum, or plaster stone, as a manure, I have been in hopes, on reading each number since, of finding thy request answered in a more satisfactory manner than I was able to do it. Not finding any thing since on the subject, and apprehending great improvement may be made by the use of that valuable manure, especially on the poorer kinds of soil in New England, I concluded to mention some experiments and observations on the subject, and leave thee at liberty to dispose of them as thou mayest think proper.

It has been asserted in print, "that it is well known that gypsum does not answer near the sea;" and this has been the prevailing sentiment, to the great discouragement of experiments. One object I have in view is, to endeavour to remove this *too general idea*; for as no limits have been mentioned, to define how near or far off from the sea the farmer must live, before he can promise himself any success in the use of the plaster stone, it has operated as a general discouragement to farmers in this, and I believe in neighboring States. I therefore mention, for the encouragement of farmers in general, that by information I have received, and which may be relied on, the gypsum, the most ancient name, and which I shall use, (as to make it the plaster of Paris it must be first burned; and beside, as ours used in America is chiefly the product of this country, it is still less proper to call it plaster of *Paris*;) that this manure has been used in the form of flour (the stone being first ground in any mill) in the State of New York, on land near the shore of the western sound, *with great advantage*, while other lands near by received no benefit. This information satisfied me that it was more in the *soil* than in the *sea air*, or *sea water*, which prevented the useful effects of the gypsum, near the sea; for these equally pervaded the fields on which it proved useful as those where it did not; and the same variety of soil existing far in the country, where some

fields are greatly benefited, and others on the same farms near by receive no material advantage from the use of this manure.

The knowledge of these facts induced me again to make further trial of the gypsum, having some years before tried some imported directly from France, as well as some from Nova Scotia, without any material advantage. That there is a difference in the plaster, as well as the soil, is equally a fact; for all the chymists who have analyzed the gypsum, as far as I have seen, disagree in the proportion of its component parts; this being, I presume, owing to the different specimens they tried, and shews many varieties of it. But to be satisfied of this by my own experience, I tried by pulverizing four samples, two of white, one blue, and one red; the white was hardest to pulverize, the blue next, the red the softest. I put each specimen into an iron kettle, with a view to try them by the common test,\* by which it is known or represented by writers and others, as the best for manure. The two first appeared considerably like a fluid; but did not boil; the blue shewed some appearance of air holes, but not in the degree I had heard spoken of and read about; but the red shewed much ebullition, and on stirring seemed to bubble briskly, and continued lively some time. From this I concluded the *red* was the best for manure, and proposed purchasing chiefly of that for use the next season. But that I might have the best criterion in future, after I had experienced, if I should live, the several kinds of these samples, I took three samples of the same stones, of equal weight, say 960 grains, in open air thermometer 55°, both in and out of water. I weighed these hydrostatically, or in water; the white sample weighed 534 grains, being 42½ per cent. less in than out of water; the blue and red differed very little, weighing 43½ per cent. less in water than out. On calcining these three samples to a red heat, they weighed nearly alike, viz. 754 grains, losing about 21½ or 22 per cent. which is more than Chaptal mentions of the French plaster stone, which he says loses nearly 20 per cent.

I have heard that the white kind has boiled briskly in some other experiments, which also shews the great variety of it; however, the only author I have seen that describes an unfertilizing kind, is the "Pennsylvania Farmer:" he says, that which feels rough or gritty to the touch has done his land no good, while that which has a soft feeling has doubled the value of his land. Though this observation corresponds with the recollection and observation I have made on a parcel I tried without success, and of the white which is mentioned, that did

\* See page 24 of the Register, placing the powder in an iron pot, &c. over the fire.



not boil, yet I am not certain but even this kind on some land may be productive, and I wish not to discourage further experiments of it. This hard kind is said to be the best for stucco or plaster work, for which purpose it must be calcined, which Peters says lessens, if not destroys, its agricultural use, but doctor Darwin apprehends it would increase it; which I mention, that Peters' opinion (being one of the first and largest writers of experience on the use of the gypsum) may not prevent further experiments, to decide this as well as other diversity of sentiments on the subject of this highly useful manure.

As it is generally understood, by those who have looked into the subject, that the gypsum is not used as a manure in England, and this has been mentioned in support of the idea of the sea air's destroying its use as such, I will mention some facts to remove this error. It appears by Willich's encyclopedia, and from the Bath and West of England Society, that "sandy land strewed with gypsum was more productive than the same kind of land covered two inches with stable manure." Although there, as well as in this country, it does not succeed in all sorts of land, yet, says Willich, for chalky and dry calcarious lands its superiority has been clearly evinced over *every* other manure. And Young, in his Annals of Husbandry, says, oats prepared for sowing, with one bushel of gypsum mixed with eight of oats, after they were wet in water before sowing, exceeded in their produce twenty-six bushels, that of an equal quantity with many other previous preparations; and it appears they, as well as those of experience in this country, prefer sowing the gypsum previous to rains, as thereby it is thought its efficacy is considerably increased.—Kirwan gives it as his opinion, that clay soils were more improved by gypsum than calcarious earths, which, with other similar observations, being opposed by other writers, should excite the farmer to experiments; for the proverb is perhaps in no instance more clearly verified, that "experience is better than science," than in the subject of gypsum as a manure. Indeed, our imperfect knowledge of its mode of action, the proportionate value of the several varieties, the proper application as to quantity and seasons, and the varieties of soils as well as of plants, require the experience and observation of farmers as well as the investigation of science.

From the little experience I have had for the last four years, on lands lying within forty rods of the salt water, where the tide regularly ebbs and flows; on a nearly level plain, about forty feet above the level of high-water mark, of a poor sandy soil, such as we have found highly benefited by the use of live ashes as well as leached, as a manure for Indian corn, for which such land seems most suitable, I have found the gypsum

rather better than the best ashes : when a handful of the latter and a table spoonful of the former have been applied to the hills, side by side, on husking and weighing an equal number of hills of each, the corn has been about five pounds in one hundred hills, the heaviest for three years successively, on different fields, adjoining other land, on which I put gypsum ten years ago without perceiving the least benefit.

This year I have had fresh proof of the usefulness of the gypsum, as a manure for Indian corn. I planted an oblong field, on which my people carted, spread, and ploughed in my hog manure, as has been my custom for several years, on these light lands. At planting time I ordered the principal part of the seed corn soaked, and as much plaster put among it as would stick to the grains, and so planted it. When it came up, it shewed a stronger color than that planted without any gypsum, as we had before several years observed. After weeding, our practice has been, to put ashes on part and the gypsum on part of the field ; but this year, not having collected any ashes, in confidence that the plaster was at least as good, we used little or none, but put on all the plaster we had, which extended over about half the field ; soon after hilling, this half appeared to have nearly doubled the herbage of the other half. I sought and found more plaster, and ordered a table spoonful on one part, and a heaped tea spoonful on the other part, not plastered before, except a small part left for experiment without any : this was on the twenty-fourth of the sixth month, called June, when I also ordered a bushel to be sown broad cast on a measured acre of that part of the field which we first plastered. On the same day we were favored with a refreshing shower of rain ; after which, as I passed by the field, I took notice there was no appearance of the gypsum, which before was very visible. The result of this experiment has been, that the corn at harvest, on the end plastered on the twenty-fourth of the sixth month, was nearly, if not quite, equal to that plastered at weeding time : and the acre on which the bushel was strewed, as mentioned above, produced about  $2\frac{3}{4}$  bushels more than an acre adjoining, by calculation after weighing an equal number of hills of each. The increase of the crop by means of the gypsum, appears to be  $8\frac{1}{4}$  bushels to an acre on that which was twice plastered, and  $5\frac{1}{2}$  bushels on that once plastered, more than that not plastered after the corn came up ; the field as nearly equal as perhaps any field : the season has been good.

It appears by an experiment reported to the Pennsylvania Agricultural Society, that nine bushels of Indian corn was raised there on an acre, by means of a table spoonful of gypsum to

each hill, put on after the first dressing.\* Whether this difference is owing to the sort of gypsum, the soil, situation, or season, is uncertain, perhaps either may be sufficient to account for the increase of that in Pennsylvania.

Since harvest, on inquiry, I find some other farmers in this and New York State, have been in the practice for several years of putting a heaped tea spoonful on a hill, two and three times during the growing of the corn, with equally as evident an advantage the two last times as the first, each shewing its effects in the vigor, color, and growth of the corn, as well as the filling of the ears at last; and some say, the color and growth is perceptibly improved in fifteen days. Some of these I have mentioned say, that sowing the gypsum over the field answers as well as putting it on the hill, though it is, as far as I learn, most generally put on the hill by children.

I am lately informed of an observation of an ingenious farmer on the western sound, which, as I think it worthy a trial, I mention it—That the sowing or putting on the gypsum in a northerly wind renders it more productive, and prevents the supposed bad effects of the marine acid which accompanies our southerly or sea winds. Though this to some may appear chimerical, when I first heard it mentioned, my mind was led to consider and compare the observations of Doctor Home and other writers on the food of plants, and their comparison of the exposure of the earthy materials in the making of nitre to a northerly wind, as being much more productive than when exposed to a southerly wind. If the sea air, or marine acid, is an injury to the use of the gypsum, it being first saturated with a nitrous air, may prove a remedy. The gypsum being powerful in attracting and retaining moisture, and perhaps the very gas that is a food of plants, when it comes within the sphere of its attraction or affinity with it, and the land winds containing more of this than the sea winds, an imperfect theory may be thus assigned for the curious observation mentioned.

I have tried the gypsum on potatoes, and it has proved not only productive in quantity, but improving in quality; and it has appeared to be useful to various garden vegetables. My clover this year on my plains, where only I have sown the plaster for grass, has been more productive than I have experienced before; but it having been a very seasonable year for such land as to rains, further experience on this article is required, before I can say much about it, though I doubt not its usefulness on the same fields on which I used it successfully when in corn.

\* See Dobson's Encyclopedia, under *Plaster of Paris*.

Some writers have supposed the European gypsum better than the American, but the experience I have had is the reverse; and from the great varieties in Europe as well as America, I conclude ours is as good as theirs for manure; for perhaps no part of the world receives a greater advantage from the gypsum, as a manure, than, according to accounts, the States of Virginia, Pennsylvania, and New York, when the Nova Scotia plaster is used there.

I am told by our coasting masters, that in Virginia their old worn-out land, which produced about eight bushels of wheat to the acre, are, by the use of the gypsum, brought to produce twenty. In Pennsylvania and New York they estimate their lands, suitable for the use of that valuable manure, to have been thereby doubled in value. Shall New England, which abounds with this highly useful article, for want of proper perseverance in experiments with it, lose that advantage their sister States enjoy?—I say, it abounds in New England. As it was a pleasing fact, the information of which gave me pleasure, in a conversation with a surveyor of the land in the eastern parts of the Massachusetts, I inquired if he had discovered any quantity of the gypsum in his travels. He put his finger on a map then before us, and said, "Yes; here, along the banks of the St. John's river, there appears an inexhaustible quantity." I was before apprehensive Great Britain might, by impost or otherwise, render it difficult and expensive procuring a supply; it was therefore a satisfaction to find that our own territory could furnish a supply of that valuable manure.

I have much exceeded my expectations in the length of this letter: if any part of it should appear to thee worthy a place in the Register, thou art at liberty to use it, or to reject the whole.

I am respectfully thy friend,

MOSES BROWN.

N. B. The finer the plaster is ground, I judge, the better: a ton makes from twenty to twenty-five bushels.

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For the MEDICAL AND AGRICULTURAL REGISTER.

*Objections to "burning" Meadow Lands with a View of improving them; a different Practice recommended.*

DR. ADAMS,

THE Rev. Mr. FLINT has recommended his improvement on meadow lands by *burning*,\* and thinks the success a good reason for recommending the practice to all farmers. I ap-

\* See page 168 of the Register.

plaud the gentlemen of the clergy for their forwardness to try and publish experiments; and I am obliged to the Rev. Mr. FLINT for his communication. It is not, however, because I agree with him in the opinion, that burning will improve, but because I think his letter will excite attention to a very important branch of improvement in agriculture. Meadows that are capable of being drained without too much expense, no doubt afford great encouragement for improvement: but I am no believer in *fire*; it is like revolution in governments, that always does more than you wish it should; it changes and destroys instead of improving.

Generally speaking, the great difficulty to be overcome with meadows is, to raise them above the *flood* water, and, secondly, to get rid of the *stagnating* water. Burning lowers a meadow, instead of raising it. The alkaline salts, in other words, the ashes produced by the fire, will create a fertility as long as the alkaline principle lasts: that principle, however, will not last long, and when it is expended the fertility disappears. The rank grass that grew so luxuriantly on the *ruins* of the soil, will be succeeded by moss, or by dwarfish, starved grass of the worst sort. This has been the uniform experience of the burnt over swamps: a man might as prudently burn his barn, to make a profit of the ashes; therefore, I say, never burn your meadows. If they get on fire, raise your neighbors to quench it. There is no land more barren than that which fire has consumed. For three or four years the ashes will force a crop; afterwards the ashes will be neutralized, and form a calx or hard cake, as hard as the cinders at a blacksmith's shop. To me, therefore, it clearly appears that burning meadows is spoiling meadows.

Experience has abundantly shewn, that ashes do not answer on wet lands; they make them, after a few years, still more tenacious and sour. Ashes produce a good effect on dry, gravelly, or sandy soils, which being too porous, are not hurt by the cake or calx formed by the ashes.

Your respectable correspondent is requested to exercise his good sense on these reflections, suggested as objections to his project. Let him try his experiment, but do not let him trust it so absolutely, nor recommend it so confidently for general adoption, as he now seems to suppose he may.

Meadows are *soaked* lands, from which the redundant water has banished the principle of fertility. Attack the disease then in its cause, and at the fountain head. Raise your meadow with an inch or two of the upland earth, no matter if it be sand or gravel apparently barren. Sow herds grass and fowl meadow grass seed, and dress the soil with a sprinkling of coarse strawy manure.

Depend upon *time* to improve your meadow, but do not depend on fire. Burning is like borrowing upon usury: you may fill your barn and yet ruin your soil. Do not try violent remedies, but wait and try

PATIENCE.

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## MISCELLANEOUS ARTICLES.

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TO DR. ADAMS.

SIR,

THE following is an extract from a letter, received a few days since, from a subscriber to the Register; if you think it worthy a publication, you will insert it in your next number, and oblige  
Your's, &c. W. C.

"The Register has completed one annual course, opened a channel for correct information, and exhibited a specimen of its utility. Those patrons, whose unremitting exertions have been subservient to its establishment, cannot but acknowledge ample compensation, when they contemplate the advantages resulting from a general diffusion of experimental knowledge, so happily adapted to the immediate and important concerns of human life.

"The obtrusive ideas of some, whose unbounded self-sufficiency supercede the necessity of investigation; and the disappointed expectations of others, who unreasonably calculated for a discussion of every subject that their particular circumstances might require, may operate unfavorably, and in some degree check so speedy a circulation of the Register as its worth demands: but when the public shall once become acquainted with the result of medical and agricultural experiments, the mazy rounds of unwarrantable practice will be rendered unnecessary, our labors advantageously directed, and the happy consequences will have a natural tendency to expel those confused immethodical habits which impede the progress of agriculture and the healing art.

"The field of investigation is open before us; its extensiveness and rich variety afford ample scope for every genius, while the Register, so happily calculated for disseminating a knowledge of important facts, and the result of experiments, must deservedly obtain the sanction of every well-wisher to the true interest of his country, and claim the gratitude of every friend to humanity."

*Result of Meteorological and other Observations, for December, 1806; made at DEERFIELD, WARWICK, MASON, SMITHFIELD, (R. I.) and BOSTON.*

| Dec. 1806. | Mean degs.<br>at sun-rise. | Mean degs.<br>at 2 P. M. | Mean degs.<br>at 8 P. M. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births. | Deaths. |
|------------|----------------------------|--------------------------|--------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|---------|
| Deerfield  | 20 $\frac{2}{3}$           | 34 $\frac{1}{2}$         | 27 $\frac{1}{2}$         | 1st day, 49°                   | 17th day, 8°                | N. W.                |            |         |         |
| Warwick    | 20 $\frac{1}{2}$           | 33 $\frac{1}{2}$         | 28 $\frac{3}{4}$         | 1 49                           | 31 8 $\frac{1}{2}$          | N. W.                | 5          | 1       | —       |
| Mason      | 26                         | 32                       | 27 $\frac{3}{4}$         | 1 54                           | 31 3                        | N. W.                |            |         | 1       |
| Smithfield | 25 $\frac{1}{2}$           | 33                       | 30 $\frac{1}{2}$         | 26 48                          | 16 4                        | N. W.                |            |         |         |
| Boston     | 27                         | 36                       | 31                       | 26 52                          | 31 8                        | N. W.                |            |         |         |

## WEATHER.

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| 1st day } fair                      | 18 } cloudy                           |
| 2 } <i>last quarter.</i>            | 19 } fair, hazy in some               |
| 3 } snow, rain,                     | 20 } <i>Sund.</i> places on the 21st. |
| 4 } and hail                        | 21 } snowy morning, fair at night     |
| 5 } fair, some                      | 22 } cloudy, rain                     |
| 6 } clouds, and                     | 23 } fair, cloudy                     |
| 7* } <i>Sund.</i>                   | 24 } afternoons <i>Full Moon.</i>     |
| 8* } a little snow                  | 25 } cloudy, moderate rain            |
| 9 } in some places <i>New Moon.</i> | 26 } fair                             |
| 10 } rain along the sea-shore, snow | 27 } <i>Sund.</i> cloudy, some rain   |
| in the country                      | 28 } cloudy; snow mostly gone in      |
| 21* } cloudy                        | 29 } many places                      |
| 12 } snow, rain, and hail           | 30* } fair and                        |
| 13 } fair                           | 31* } cold.                           |
| 14* } <i>Sund.</i>                  |                                       |
| 15* } and                           |                                       |
| 16* } clear                         |                                       |
| 17 } <i>first quarter.</i>          |                                       |

Depth of water fallen in rain { *Warwick*, 2,25 inches; snow 14 inches.  
 { *Smithfield*, 2,25 inches; snow 10 $\frac{1}{2}$  inches.  
*Mason*, ————— snow 17 $\frac{1}{2}$  inches.

*Mason*.—About the 25th, robins and striped squirrels were seen frequently. The state of health has been generally favorable in this town, excepting some instances of bilious fever.

*Warwick, December 31, 1806.*

*Remarks*.—Exceedingly dry for the season. We have had extraordinary good sleighing the greater part of this month. We have had no severe storms of long duration. The 3d was a cloudy, raw, cold day, the ground bare and hard frozen; at 4 P. M. the snow commenced, and continued during the night,

\* Days of continued frost, according to observations made at *Boston*; or, days on which the range of the thermometer, through the whole twenty-four hours, was below 32°, or the freezing point.

with a strong east wind. The 4th was cloudy and snow by turns; the sun appeared at 11, then clouds and snow. At 6 P. M. we experienced a very heavy gust of wind and snow from the south-west: fair at 8 P. M. and the wind west. The snow fell about six inches deep.

*The state of health* is tolerably favorable; the jaundice the most prevalent disorder.

W. COBB.

*Smithfield, December 31, 1806.*

The weather during this month has been variable. We have had no severe storm, but a considerable portion of stormy weather. Our storms that have begun with snow have ended with rain.

"Mut'ring the winds at eve, with blunted point  
"Blow hollow-blust'ring from the south. Subdued,  
"The frost resolves into a trickling thaw."

—————"Thus winter falls  
"A heavy gloom, oppressive o'er the world,  
"And rouses up the seeds of dark disease."

About the 24th of the month, robbers appeared in large numbers. Snow nearly gone in cleared land by the 29th.

The state of health appears rather more favorable.

A SMITHFIELD SUBSCRIBER.

*Deerfield, December 31, 1806.*

*Remarks.*—Previous to the 4th the ground was bare; on this day snow fell six inches, and the ground has continued to be covered. Weather, for some part of the month, extremely cold. At this time, little snow on the ground; roads a solid mass of ice. Springs continue very low; difficult to get water for cattle.—Month very healthy.

EP. HOYT.

### *Medical News.*

The following is an extract from a private letter to the Editor; the facts therein related may be depended upon as authentic; the names of the actors and the place of the drama, the Editor has thought proper to suppress.

A Mr. \* \* \* \* \*, formerly an attorney at law, "by reason of disappointment had been in the habit of using ardent spirit to excess, which produced *delirium*, and rendered him extremely troublesome to all around him. His friends were obliged to board him wherever they could obtain suitable places, and shift the same frequently. Being tired out, and wishing, if it were



possible, to have him restored to reason and his former usefulness, they called five of the most respectable physicians in the vicinity of \* \* \* \* in the State of New Hampshire, where the said \* \* \* \* then resided, (being about the middle of September last,) and wished them to do what should appear best calculated to effect the aforesaid purposes.—After consultation, it was agreed, that the patient should be *totally* immersed in water, one minute and eight seconds, meaning to *suspend the functions of life for a time*. It was accordingly done; but, to their disappointment, his revival was attended with all his former traits of irregularity. The same day the experiment was repeated, and the time increased to *one minute and forty seconds*, but to no good effect."

The subsequent treatment and the event, it is not to our purpose to state. The fact, which we esteem it important to be recorded and known, is, that *drowning*, so far as it appears from this case, is no cure for *delirium*!

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## N O T E S.

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### I. To Gentlemen of the Clergy.

THOSE gentlemen of the clergy or others, who may be disposed to favor us with a *Bill of Mortality* for the year 1866, in their respective towns, agreeably to a solicitation expressed in the first number of the Register, will greatly oblige us by doing it *seasonably*. Our acknowledgments are due for a

number of Bills which have been received: our purpose respecting these and others which are in expectation, is to arrange the facts they contain under one *general bill*; we are, therefore, the more solicitous that they be forwarded *seasonably*.

### II. To Readers and Correspondents.

WE are happy, at the commencement of a new year, to be enabled to present our first number made up wholly of *original* communications; among which we think there will be found some important and very interesting information. Our agricultural correspondents, especially, will accept our

most grateful acknowledgements for their favors. There is so great a backwardness, generally, amongst agricultural men, to communication, that favors of this nature are the more gratifying; for the same reason they are the more earnestly solicited.

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THE

# Medical and Agricultural Register.

VOL. I.]

FEBRUARY, 1807.

[No. 14.

## M E D I C A L.

*Observations on the Cynanche Trachealis, a Species of Quinsey, sometimes called Croup or Rattles, with the Method of Treatment, which in a great Proportion of Cases has been found successful: Communicated in a Letter to the Editor, by Doct. JAMES MANN, of Wrentham.*

SIR,

I HAVE met with a communication of doctor GUTTEAU, in a paper denominated the "*Utica Patriot*," in which it is announced, that in several instances he has treated patients laboring under the *cynanche trachealis* with success, by bleeding and calomel; and as his practice, in that formidable disease, is similar to that (with little variation) which I have used ten years past, with the best effect, I cannot but wish that the communication may be republished in the Medical and Agricultural Register.

### *Cure for the Rattles.*

"Having within a few weeks been called to visit a number of children, afflicted with the rattles (*cynanche trachealis*) I think it my duty, as a friend of humanity, to communicate to the public the result of my recent practice, which, in five cases out of seven, has proved successful.

The symptoms, it is well known, usher in the complaint by a buzzing or rattling of the breath, a dry cough, great difficulty of respiration, the pulse is frequent, the patient restless. Some are suddenly attacked during sleep, while others exhibit, in the first stages of complaint, the usual symptoms of a heavy cold, which in a few hours increases so as to threaten suffocation.

When called, in the first stage of the disease, I take from the arm four, six, or eight ounces of blood, according to the age and strength of the patient. If blood cannot be drawn from the arm, a skilful operator will find little difficulty in taking a sufficient quantity from the foot. Immediately after this I give ten, twelve, or fifteen grains of calomel, with the intention of inverting the motions of the stomach, so as to produce puking.—If the above dose does not have that

effect, repeat it once in thirty minutes, till three portions are exhibited, when a little emetic tartar may be given, to promote the effect of the calomel.—After the child shall have puked several times, calomel in small quantities (grains four or five) should be given once an hour, to purge the child. If too much feverish heat exist in the system, another bleeding will be necessary.

Should the difficulty of breathing, after having been alleviated, return, a large dose of calomel must be again exhibited; and if it do not soon prove emetic, tickle the fauces with a feather till the motions of the stomach be inverted, which will bring the windpipe (the seat of disease) into association with the inverted motions, and cause a discharge of the tough phlegm, which, when rendered hard and membranous by absorption of its thinner parts, is the cause of the patient's death.

A blistering plaster should be applied to the throat, upon the first appearance of the disease: and parents ought to be extremely ready to resort to medical aid, upon the FIRST INTIMATIONS of the complaint, as the life of the patient depends upon the application of remedies in the EARLY STAGE of it [a caution very necessary, and worthy the attention of all who may be called to witness this most distressing disease in their families.]

After the system has run into indirect debility, and the powers of life are much weakened, little hope can be had of the patient's recovery.—If the feet incline to be cold, flannel cloths wrung from hot water and applied to them for several hours will prove efficacious, by equalizing the action in the system.

Seneca snake root, so much extolled by doctor Archer (Medical Repository, Vol. II. page 24, and 189) has in my hands proved ineffectual. Squills (rad fcilla) however useful they may prove in affections of the lungs and other complaints, are mischievous in this.

L. GUILTEAU."

The above disease is in this part of New England known by the name of *quincy*; in some places the name of *croup* is bestowed upon it; in Pennsylvania and Maryland the disease is called *huies*, a corruption of *heaves*. One characteristic mark of this disease is, that the cough which accompanies it is very similar to the barking of a young puppy.

I have also been in the habit of encountering this disease by bleeding and calomel. My intention was not, however, to excite a vomiting by calomel, as is the practice of doctor Guiteau; yet the employment of this medicine, in smaller doses than those recommended by him, has been accompanied with equal success.

Bleeding is the first thing to be attended to, in order to mitigate the alarming symptoms of the disease. It is very immaterial from what part the blood is taken. When it is found difficult to open a vein of a young child *secundum artem* [according to art] the veins of the foot may be divided, by a deep incision through the skin and membrana adiposa [cellular substance] without danger. A wound of this kind is of small consequence, compared with the loss of life. I have practised this in several instances, where the patient was in danger of immediate suffocation. In no instance has bleeding failed to mitigate the alarming symptoms of this disease. An immediate cure was effected upon a youth twelve years of age, by taking twenty four ounces of blood from the arm.

After bleeding, calomel is to be administered, in doses of three to six grains, according to the age of the patient, and is to be repeated every two or three hours, *pro re natâ* [as the case may require.] I have not been accustomed to employ calomel in doses, as recommended by doctor Guiteau; but to a child one year of age, I have administered twenty grains in twenty-four hours, with the best success. A blister upon the throat should not be omitted.

My own child, two years of age, having taken fifteen grains of calomel in the space of a few hours, without any remission of the disease, was bled in the foot, by dividing the veins by a deep incision, which procured an immediate relief. The same child, when four years of age, apparently in a state of suffocation, was removed out of danger, by the loss of six ounces of blood from the arm.

In the autumn of 1805, sixteen patients following, were cured by bleeding and calomel; and in no instance have they proved unsuccessful in my hands, when they have been seasonably employed.

Antimonial emetics, without the addition of calomel, at the commencement of this disease, in three cases out of four, aggravate all the symptoms of it. After inflammation is somewhat abated by bleeding and calomel, small emetics are beneficial to promote expectoration.

As much as I am pleased with doctor Guiteau's practice, I do not agree with him, that the benefit derived from calomel in this disease is merely the effect of its emetic operation, and the inverted motions produced thereby; because a vomiting, from other emetics, would be productive of similar effects: but the cure is performed by its specific effect.

Calomel, in this state of disease, as in other states, excites into action the salivary and other excretory glands of the fauces [mouth and throat] and parts adjacent, and promotes an increased discharge of the material naturally secreted to moisten that trachea [windpipe]; and thereby prevents the formation of the membranous substance, made hard and adhesive by the absorption or evaporation of its more fluid parts, and which is lodged within the trachea. I do not, however, suppose that this membranous substance is the immediate cause of death; but it is occasioned by a spasmodic stricture of the epiglottis [a substance which in the act of swallowing closes up the passage into the windpipe] rendered so irritable by the inflammation, that the very contact of air induces a suffocation, by closing up the opening of the windpipe. The immediate relief procured by bleeding favors this opinion.

*Wrentham, December, 1806.*

JAMES MANN.

*Remarks.*—There is one idea particularly, in the foregoing communication, which it is wished might be generally noticed; it is that of obtaining blood from children, where other methods have proved unsuccessful, by “*a deep incision through the skin and cellular substance of the foot.*” Violent diseases, in order to be successfully combated, oftentimes require the use of remedies apparently severe; and it is of great importance that people generally, more especially parents, should be apprised of the use and necessity of such remedies, in order that they may be prepared, should they be so called, to meet the occasion which renders them necessary, with the greater composure and resignation.

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For the MEDICAL AND AGRICULTURAL REGISTER.

*A popular Opinion controverted.*

HAVING, in my last observations, touched upon some of the deplorable consequences of *hard drinking*, I come now to take notice of an opinion grown popular not only with people generally, but even with some physicians, and which is, That habits of intemperance must not be broken off suddenly and altogether; that when a man in this way has once *got himself down*, the abstraction of spirit must be gradual, diminishing the quantity from time to time; and that whereas he may have been in the habit of taking *one quart a day*, he must now be allowed but a *pint*, then *half a pint*, and so on till he shall be brought back to a healthy standard; and all this, say they, Because the total and sudden deduction of so powerful a stimulus from the system would endanger the life of the patient. Just as if a child, by some accident, having been pitched into the fire, the kind mother should say, Don't take it out too suddenly; fetch it first just over the firestick, then on to the andirons, lest the too sudden transition from so violent an extreme of heat as that of the fire to the ordinary temperature of the room, should endanger the safety of the child.

It is not my intention to go into any course of reasoning on this subject. I consider it as unnecessary as arguments to prove that the sun gives light. I only wish for a recurrence to plain, simple facts. In doing this I believe every man, whose mind is not fettered by systems, will be persuaded that this opinion is not founded in truth, that it has been taken up without proper evidence, that it is deceitful in itself and ruinous in its consequences. And in the first place, who is the man, who ever suffered, or whose death could fairly be imputed to a sudden

and total abstraction of *ardent spirits*, where any proper substitute had been administered? I believe the instance is not in the recollection of any one. In the second place, I would ask, Has there ever been an instance, one single instance, in a notoriously hard drinking man, of a reformation having been brought about upon this *retrenching system*? I presume not. Certainly such an instance would be new to me. Give a man of this character but his *first cup*, and afterwards you may as well attempt to reason with the wind as with him. As well might you call out to a distracted man who should have cast himself down from the pinnacle of some mountain, and, while plunging in air, call upon him to stop, to resist the force of his own gravitation, and thereby save himself from the rocks beneath, as upon such a man, after having entered upon his cups, to resist the force of his habits and temptation. Thirdly, there are instances, (to the honor of some be it said) there are instances, here and there an instance in the recollection of almost every one, of complete reformation from habits of intemperance and intoxication to that of sober and regular life. And now let me ask, how was the reformation in these instances brought about? Has it not in every instance been effected by *a sudden, a total and an entire abstinence from the use of ARDENT SPIRITS, of every name and nature*? Let facts speak for themselves. The man who may have been the subject of such a reformation, either from shame, remorse of conscience, love of family, or fears of death, has been brought to make a solemn pause. He has surveyed the natural consequences and the usual termination of such a course of habits; and, like a prudent man, foreseeing the evil, he has saved himself by a resolution, not of an ordinary nature, but a resolution guaranteed by his most lively sense of honor and manly pride, and which all the faculties and energies of his soul are engaged to execute, that he will not so much as *taste* more of ardent spirits. And as is the strength of this resolution, so, generally, is his safety. But this resolution, from any circumstance being once overcome, his ruin is almost inevitable.\*

It has been my lot, in several instances, to have for my patients, persons, who, after a number of successive days of intoxication, had at length brought themselves well and exhausted to their beds. A feeble pulse, clammy sweats, sickness, hiccup, fright-

\* I knew an instance of an habitual drunkard coming to a resolution of this nature, which being most *scrupulously* adhered to, he became a man of very regular habits and much respected for a number of years. He was at length brought low with a fever, and his physician, as is in such cases common, presented for him *wine*, in considerable quantities. The consequence was, to be sure, a recovery from his fever, but an *immediate relapse* into his former habits of intemperance.

ful imaginations, delirium, convulsions, are some of the alarming appearances which I have witnessed. My first care, however, has always been to put every kind of spirit out of the way of my patient, nor would I allow him so much as a *bitter* infused in spirit. And in all instances, where my orders have been complied with, after a few days I have had the satisfaction of finding my patient recovering both strength and appetite, so as in a little time to be about and capable of business.

One authority in confirmation of the fitness and the truth of these observations, and I will have done. And this is no ordinary one. It is that of the justly celebrated Dr. Rush. Upon this subject the Doctor observes: "It has been said, that the disuse of spirits should be gradual; but my observations authorize me to say, that persons who have been addicted to them should abstain from them *suddenly* and *entirely*. "Taste not, handle not, touch not," should be inscribed upon every vessel that contains spirits, in the house of a man who wishes to be cured of habits of intemperance. To obviate for a while the debility which arises from the sudden abstraction of the stimulus of spirits, laudanum, or bitters infused in water should be taken \* \* \* By the temporary use of these substitutes for spirits, I have never known the transition to sober habits to be attended with any bad effects, but often with permanent health of body, and peace of mind."\*

OBSERVATOR.

Massachusetts, February 10, 1807.

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## AGRICULTURAL.

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### ON THE IMPROVEMENT OF WORN-OUT LAND.

*By deep Trench and frequent Ploughing.*

Communicated to "the Blockly and Mirrion Society, for promoting Agriculture and Rural Economy."—By RICHARD PETERS, Esq. President of the said Society.—Concluded from page 185.

TO perform the operation of trenching [turning two furrows in the same place] which is unnecessary above once in seven years, I have a plough in the common form, but large and strong—the mortise in the beam long, so as to admit of altering the inclination of the coulter, as you would wish to go deeper

\* Medical Inquiries, Vol. 1. page 384.

or shallower ; and the mould-board is constructed so as to cast off more earth than the common plough. With this plough, drawn by two oxen and two horses, or four of the former, I begin first by running as deep a furrow as possible. The next operation is made with a light plough and two horses, which pares off the sod two inches deep, with a broad furrow, turning this sod in the trench, or the former furrow, with all its weeds, roots and other pests to your soil. These are completely covered up by the large plough, some what narrower than the small one, and which running in the same furrow, throws over a body of earth, which buries these nuisances ; most of which being placed beyond vegetation, ferment, rot, and become blessings, by adding to the fertility of the soil. The depth from ten to fourteen inches, as your soil will bear. This, when I can do it, I have finished before winter. Next season I give it a light dressing with lime, dung, or such other manure as I can obtain, and work it well with Indian corn, the most common fallow crop we have.

In trenching I am satisfied if I complete three quarters of an acre in a short day, though sometimes I do more. My plough runs, in the years succeeding the trenching, no deeper than is required in good common ploughing, perhaps from five to six inches. I frequently sow buck-wheat, and plough it in when in full blossom, as a green manure and covering crop. I have raised potatoes, tap-roots, and cabbages, in grounds thus prepared, as fallow crops, to great advantage. The effects have answered my most sanguine expectations, and I therefore most warmly recommend it. Be not uneasy if your profits be not immediate. Time and tillage are required to impregnate this new earth, which has, in itself, less food for plants, than it will obtain from the air by stirring and exposure. To those, who will not confine themselves to a spot within their power to trench, I would recommend adding another horse or yoke of oxen to their plough, and deepening their furrows, making it an object to turn up their fallows in the fall. This will be a step towards good husbandry. If to this they will add one or two extraordinary ploughings, the succeeding seasons, their crops will amply repay them.

The method I mention is not without its exceptions, of which the farmer, from small essays, must inform himself. The depth must be regulated by the staple ; and there are some soils, not proper for wheat, and evidently improper for trenching ; though these are few. I know, too, that some, and particularly clay-farmers, are attached to their clods ; because they keep the ground from consolidating, or, as they call it, saddening or poaching. But it is best not to sow wheat on such soils,



till prepared by good tillage, with some manure and a good course of cropping, as well fallow as covering, to precede this, which is justly styled the golden grain. When thus prepared, the fermentation introduced by the manure will cause a repulsion between the particles, and the very nature of the soil will be changed. It is well known, that soil thus treated lies light and loose and therefore to keep it asunder, has no occasion for clods; to which even stones (as they retain moisture and contain no noxious roots or seeds) are, in many respects, preferable. Nor will this soil be spewy, as it is commonly termed; as the roots will take deep hold, and want not the shelter or gradual nourishment, which those, who are advocates for clods, hold out as necessary in shallow ploughed grounds. Instances are not wanting, where good crops have been obtained, harrowed in at one ploughing, late in the autumn, when the vegetation of the weeds or grasses have been ended or choked for the season. This may, with good luck, serve a turn. The crop may get the start of the weeds and grasses; which they revenge by growing with more vigor when it is off. It is, on this account, bad farming; and should rather be treated as a fortunate exception, than as a rule. I do not here allude to wheat, sown at one ploughing, or a clean cloverley; for this is a valuable part of a rotation system of farming. I will close this part of the subject from Duhamell—

“It is often more advantageous to increase the fertility of land by ploughing, than by dung. Because in general only a certain quantity of dung can be had; the produce of twenty acres being scarcely sufficient to produce enough for four or five; whereas the particles of earth may be divided and subdivided almost to infinity. The help derived from dung, is therefore limited, while no bounds can be set to the benefit derived from ploughing.” This observation, of one who was an enthusiast for the drill husbandry, may be somewhat tinged with attachment to system; truth is generally between the extremes, to which the advocates for favorite systems extend their speculations; manures must never be neglected. But, with them, the practice here recommended should be seriously attended to. It will render their efficacy more beneficial, and of course require a smaller quantity; without them, it is the best substitute, that those, who cannot or will not obtain them, can apply. With all this, the farmer must not be in too great haste to obtain his ultimate profit. Time is required in the preparation. Fallow crops, which either cover or force tillage, will repay the expense in the necessary stages of improvement. We must not crowd into one season, the business which will be ineffectual, unless three or four years be devoted to it.

When the end is accomplished, its effects are not transitory, but permanently profitable; and the persevering cultivator will long continue happy, in the well earned and the rich rewards of all his patience and all his toils.

Thus have I endeavoured to comply with the wishes of the society, by proposing what to me appears "the best method of improving worn out lands." If the means I have offered, be well known to the experienced agriculturalist of Europe, or of our own country, they are the more to be relied on. Our profession derives substantial advantages from well directed practice and experiments perseveringly executed. Theories, however new, ingenious and amusing, are of little use, unless proved beneficial by these indisputable tests.

By order of the Society,

RICHARD TUNIS, Secretary.

### *Shearing of Lambs.*

To the Philad. Society for promoting Agriculture and Domestic Manufactures.

GENTLEMEN,

I BEG leave to communicate to the society an experiment I made last year, on the subject of shearing lambs. From a flock of sheep, of the common country breed, I selected five lambs, which were weaned in the month of March. On the first day of August I sheared two of the five, and took half of the fleece of the third from one side. The weight of wool in August was—

|                            |       |                     |
|----------------------------|-------|---------------------|
| No. 1,                     | - - - | 2 $\frac{1}{4}$ lb. |
| No. 2,                     | - - - | 2 $\frac{1}{2}$ lb. |
| No. 3, half of the fleece, |       | 1 $\frac{1}{4}$ lb. |

The other lambs, No. 4 and 5, of the same age and condition, were not shorn.

On shearing my flock of sheep this spring, in the month of May, the following was the result of the experiment:—

|                                           |         |   |                     |
|-------------------------------------------|---------|---|---------------------|
| The fleece of No. 1,                      | weighed | - | 3 $\frac{1}{4}$ lb. |
| do. No. 2,                                | - - -   | - | 3 $\frac{1}{4}$ lb. |
| do. No. 3, from the side shorn in August, |         |   | 1 $\frac{1}{2}$ lb. |
| do. do. - not shorn                       |         | - | 2 lb.               |
| do. No. 4,                                | - - -   | - | 3 $\frac{1}{2}$ lb. |
| do. No. 5,                                | - - -   | - | 3 $\frac{1}{2}$ lb. |

The wool taken this spring from the lambs, No. 1, 2, and 3, was not so long as from No. 4 and 5; but the fleeces were much thicker, equally fine, and not the least matted.

This is a great national object. Our hatters are in want of wool, for the manufacture of hats; which might be supplied, if the farmers were to shear their lambs in August.

I am so perfectly convinced of the profit and public utility of the practice, that I shall continue it.—It is necessary to keep the lambs and ewes in good pasture. My sheep had the run of a good clover field during the summer, and were healthy.

I am, gentlemen, with great respect,

Your friend,

GEORGE LOGAN.

*To raise early Potatoes ;—extracted from an English publication.*

TAKE the potatoes whole, and cover them up in horse litter of a moderate warmth; let them remain there until they put forth shoots of four or five inches in length, which they will do in two or three weeks; then take them carefully from the litter, and put them, perpendicular and equal with the surface,\* into a light dry soil, with more horse dung. If the season be tolerable, they will vegetate amazingly fast. In this cold country, the last week of April, or first of May, is early enough to venture them out. By these means, potatoes may be had four weeks earlier than the same variety can be raised in any degree of perfection, were they planted in the usual way. The above was communicated to me by a reverend clergyman of my acquaintance, who has practised it with great success, for more than a dozen years.

[From the (Trenton) True American.]

*On Fining Cider.*

Cooper's Point, March 10, 1804.

RESPECTED FRIEND,

As you have published my method of fining cider with isinglass [fish glue] *which is a foreign article and expensive*; and as I have, by one of my whimsical experiments, discovered a method new to me, and with a domestic material, generally thrown away as useless, which, on the first trial, has succeeded far better than isinglass ever did with me; and as it is my disposition to wish that any useful discovery, which Providence throws in my way, may be useful to my fellow citizens, I send you an account of it, which you are at liberty to make what use of you please.

\* "*Perpendicular and equal with the surface*;" by this we understand, that the potatoes should be planted with the shoots standing upright, and so deep in the earth as that they (the shoots) may be just seen peeping out of the ground.—E.

Having killed a bullock, and my people having boiled the feet more than common, and let the liquor stand till cold, I perceived it to be a thick jelly, resembling dissolved isinglass; and having some cider not fined, I tried the above said jelly, by warming it till dissolved; then drew some of the cider I intended to try with it, and mixed both together gradually in a tub, and kept constantly stirring the mixture till cold; then strained it and put the mixture into two hogshheads of cider, mixing the whole as well as possible, by working it with a stick split in four parts and put in at the bung-hole. I directed it to be racked off in ten days, which was done; and on my return home, found it as fine as any cider I ever saw, and greatly improved in flavor.—If you think proper to publish any part of the above, it will be best to do it soon, as cider fines best previous to the trees being in bloom.

JOSEPH COOPER.

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#### *A Hint to Farriers.*

As at this season of the year it is not unusual for horses to labor under severe colds, especially if the wind continues long in the east and north-east, which produces obstructed perspiration, and occasions various maladies; an epidemic cold having appeared amongst horses in the parts where I reside, I think it expedient to the public for me to communicate the methods which I have found successful; and which I have, in similar cases, experienced for many years to be of great utility, during my extensive practice in farriery.

Upon the first attack, I take away about three pints of blood in some vessel, and do not suffer it, as is too frequently the case, to be spilt upon the ground, by which means neither its state nor quantity can be duly ascertained. After it has stood a while, I then examine its appearances; and if it wears a very fizy aspect, I order the operation to be repeated, and the following medicines to be given every night: Take of nitre and lump sugar each two ounces, which dissolve in one pint of spring water, with one ounce of flour of sulphur, in a warm bran mash; persevere in the use of these till the symptoms abate, which they generally do in a short time. Be careful to give the horse moderate exercise, and let him drink (whilst he is out) the softest pond water that can be got. One observation I have made, which I think worth attention, is, upon the decrease of the distemper, a quantity of small eruptions appear on the surface of the skin, which soon recede by giving two ounces of crocus metallorum, finely levigated in a small quantity of a cold bran mash for a few days.

*London Magazine.*

## MISCELLANEOUS ARTICLES.

### *Mode of breaking Steers to the draught in a few days.*

[From the American Museum.]

LET the farmer carefully yoke his steers in a close yard or stable, and not move them till they get sufficiently accustomed to the yoke, so that they will eat their food, when yoked ; which will be in the course of a day. Let them be yoked again the second day, and a pair of gentle horses or oxen be fastened before them, in which station let them stand, until they become familiar with said horses or oxen, which will generally be effected in one day, excepting the steers should be uncommonly wild, which will occasion a second day's practice, after the same manner ; and the next day, the steers may be yoked, the horses or oxen put before as usual, and let them be fastened to a waggon or any other carriage ; they fearing the carriage behind them, and being accustomed to the old oxen before, will proceed forward without being whipped or bruised. By the above process the farmer will never fail of success in having good working oxen.

*Windfor, (Vermont) January 17, 1807.*

DR. ADAMS,

HIGHLY approving the plan of the "Medical and Agricultural Register," and observing that you commonly introduce into it meteorological observations, made in different parts of New England, I send you the result of those which I have made at this place during the last year, to be inserted in the Register, or otherwise disposed of, as you shall think proper.

Windfor village, where these observations were made, is on the west bank of Connecticut River, in about latitude  $43^{\circ} 25'$ . About four miles to the south-west of this place is Ascutney, a circular mountain of about 2500 feet in height ; it may have some influence on the weather in this place, though probably not very great.

Minute accuracy in such a course of observations, every one who has been accustomed to make them, will be sensible is almost impossible ; but the general accuracy of those which I send you, may be depended on.

Yours, &c.

B. FOWLER.

*Result of Meteorological Observations made at Windsor, (Vermont)  
in the Year 1806.*

| Months. | Average heat<br>at sun-rise. | Average heat<br>at 2 P. M. | Average heat<br>of the month. | Greatest<br>heat. | Least heat. | Average heat<br>of the warm-<br>est day. | Average heat<br>of the cold-<br>est day. | Prevailing<br>winds. | Inches of wa-<br>ter fallen in<br>rain and snow. |         |       |
|---------|------------------------------|----------------------------|-------------------------------|-------------------|-------------|------------------------------------------|------------------------------------------|----------------------|--------------------------------------------------|---------|-------|
| Jan.    | 16°                          | 30°                        | 22°                           | 30                | 58°         | 18 *24                                   | 30 48                                    | 18 *6                | N. & S.                                          | 2.900   |       |
| Feb.    | 19                           | 34                         | 26½                           | 15                | 54          | 14 *13                                   | 20 49½                                   | 14 10                | South'y                                          | 2.444   |       |
| Mar.    | 22                           | 38½                        | 30½                           | 31                | 70          | 1 8                                      | 31 53                                    | 1 13                 | North'y                                          | .482    |       |
| April   | 28                           | 48½                        | 38½                           | 21                | 76          | 3 16                                     | 21 64                                    | 11 21                | N.byW.                                           | 2.783   |       |
| May     | 45                           | 69¼                        | 57½                           | 19                | 88          | 22 30                                    | 19 68½                                   | 1 44½                | N. & S.                                          | 2.056   |       |
| June    | 55½                          | 77½                        | 66½                           | 20                | 92          | 16 41                                    | 8 75                                     | 27 56½               | S.byW.                                           | 2.734   |       |
| July    | 60                           | 77                         | 68½                           | 10                | 88          | 5 44                                     | 14 7 }<br>28 }                           | 74                   | 30 58½                                           | S.byW.  | 4.340 |
| Aug.    | 54½                          | 74                         | 64½                           | 7                 | 86          | 10 }<br>29 }                             | 43 8 }<br>22 }                           | 74½                  | 10 56                                            | S.byW.  | .952  |
| Sept.   | 52½                          | 71½                        | 62½                           | 17                | 88          | 11 32                                    | 19 74½                                   | 12 40                | North'y                                          | 4.569   |       |
| Octo.   | 37                           | 62                         | 49½                           | 1 }<br>6 }        | 78          | 23 }<br>24 }                             | 23 1                                     | 66.                  | 18 37½                                           | North'y | 1.400 |
| Nov.    | 29                           | 43                         | 36¼                           | 8                 | 54          | 22 15                                    | 8 52                                     | 22 26                | North'y                                          | 2.166   |       |
| Dec.    | 16½                          | 33½                        | 24½                           | 20                | 55          | 16 *10                                   | 20 46                                    | 31 3½                | N.                                               | 2.355   |       |

Average heat of the year } 45½°      Depth of water fallen in rain and snow, during the year } 29.181

*Result of Meteorological and other Observations, for January, 1807;  
made at Deerfield, Warwick, Portsmouth, Smithfield, Hartford,  
and Boston.*

| Jan. 1807. | Mean degs.<br>at sun-rise. | Mean degs.<br>at 2 P. M. | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births. | Deaths. |
|------------|----------------------------|--------------------------|------------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|---------|
| Deerfield  | 13½                        | 29½                      | 21½                          | 29 day, 45°                    | 26 day, 10°                 | Variable.            |            |         | 1       |
| Warwick    | 12½                        | 24½                      | 18½                          | 5                              | 47                          | N. W.                | 2          | 7       | —       |
| Portsmouth | 19                         | 26                       | 22½                          | 6, 29                          | 46                          | N. W.                |            |         |         |
| Smithfield | 19                         | 28                       | 24½                          | 5                              | 49                          | N. W.                |            |         |         |
| Hartford   | 16½                        | 29½                      | 23½                          | 5                              | 48                          | Variable.            |            |         |         |
| Boston     | 19                         | 29                       | 24                           | 5                              | 50                          | N. W.                |            |         |         |

\* Those with this mark (\*) are below zero or 0.

## WEATHER.

|     |                      |                         |     |                                      |                        |
|-----|----------------------|-------------------------|-----|--------------------------------------|------------------------|
| 1*  | fair                 | ☾ <i>last quarter.</i>  | 17* | cloudy                               |                        |
| 2*  | and                  |                         | 18* | <i>Sund.</i> snow                    |                        |
| 3*  | cold                 |                         | 19* |                                      |                        |
| 4*  | <i>Sund.</i>         |                         | 20* |                                      |                        |
| 5   |                      |                         | 21* | fair                                 |                        |
| 6   | rain                 |                         | 22* |                                      |                        |
| 7   | fair; some           |                         | 23* | rain, snow                           | <i>Full Moon.</i>      |
| 8*  | clouds as            | <i>New Moon.</i>        | 24  | fair, some                           |                        |
| 9*  | on the 7th,          |                         | 25* | <i>Sund.</i> clouds                  |                        |
| 10  | 10th, and 14th days; |                         | 26* | fair and still; extremely cold       |                        |
| 11  | <i>Sund.</i>         |                         | 27* | moderate snow                        |                        |
| 12* | squalls of           |                         | 28  | cloudy, rain                         |                        |
| 13* | snow in              |                         | 29  |                                      |                        |
| 14* | some places.         |                         | 30  | fair                                 | ☾ <i>last quarter.</i> |
| 15  | clouds, snow in      |                         | 31  | cloudy, snow, rain. <i>Hartford,</i> |                        |
| 16  | some places          | ☾ <i>first quarter.</i> |     | a violent rain of 15 hours.          |                        |

Depth of water fallen in rain { *Warwick*, 4.7 inches; snow, 6.2 inches.  
                                               *Smithfield*, 3.5 inches; snow, 7.0 inches.

*Remark.*—Although the thermometer, on the morning of the 23d, at Smithfield and Boston, indicated greater cold than on the morning of the 26th; still, Monday the 26th, in each of these places, was the coldest day, a mean of the two extremes of heat on that day at Boston being  $5^{\circ}$  above and at Smithfield  $\frac{1}{2}^{\circ}$  below zero; the same on the 23d, at Boston was  $8^{\circ}$  and at Smithfield  $2\frac{1}{2}^{\circ}$  above 0 or zero. The thermometer at Boston is exposed abroad, in a northwardly situation; we presume it is the same at Smithfield. The thermometer used at Boston likewise has been compared with the one used by Mr. COBB at Warwick; whence it appears, that on the morning of the 26th, there was a real difference of  $12^{\circ}$  in the degree of cold in these two places, the thermometer at Warwick standing at  $15^{\circ}$  and at Boston at  $3^{\circ}$  below zero on the morning of that day.

*Warwick, January 31, 1807.*

The greatest part of the month has been extremely cold. Very sudden changes, but warmth of short duration. Twenty-four days of this month the range of the thermometer has been below the freezing point. At the commencement of the month the ground was covered with a solid mass of snow and ice, about four inches thick: the latter part of the month we had the addition of about six inches of snow. On the afternoon and night of the 31st, we had a very heavy rain; the water being kept from the ground by the ice, formed rapid currents, which rose to an unusual height, but no great damage sustained in our vicinity.—Very healthy.

W. COBB.

\* Days of continued frost, according to observations made at *Boston*; or, days on which the range of the thermometer, through the whole twenty-four hours, was below  $32^{\circ}$ , or the freezing point.

*Smithfield, January 31, 1807.*

The weather has been fair and steady the greatest part of the month. The ground remained bare till the 18th; since then it has been covered, till the snow was carried off by the rain this day, which is the only storm of consequence during the month. The weather has been very cold some part of the time. On the morning of the 23d, the mercury fell to  $12^{\circ}$  below 0. And the whole sum of heat on the 26th, taken at sun-rise, 2h. P. M. and sun-set, was  $2^{\circ}$  above 0.—State of health remains nearly the same as last month. A SMITHFIELD SUBSCRIBER.

*Hartford, January 31, 1807.*

January, a cold month, but little stormy weather. Healthy in Hartford. Some instances of typhus fever in adjoining towns. A great number of robins flying about all over the country.

Mean degree of heat the last year (1806) was  $49\frac{1}{10}^{\circ}$ , one degree colder than the year 1805.

*Deerfield, January 31, 1807.*

Month very healthy, dry, and in general extremely cold. Perhaps few colder *days* have been known, in this latitude, than the 26th of this month. At sun-rise the mercury was  $10^{\circ}$  below zero, at 2 o'clock P. M.  $3^{\circ}$  above, and at 10 in the evening  $14^{\circ}$  below. The weather became more moderate in the night; and at sun-rise next morning the mercury stood at  $6^{\circ}$  below zero. The day throughout was very clear, and almost calm; the sun shone with full lustre, but it had very little effect on the frost on the south side of buildings, or where the sun's rays fell perpendicularly. The day following was very cold; the mercury stood at  $10^{\circ}$  above, at 2 o'clock P. M. but the day was cloudy, and a little snow fell.

Notwithstanding the severity of the weather, *robins* have been seen during most of the winter. I do not know that this is uncommon on or near the sea-coast, where the winters are more mild than in the inland parts, but with us this is new.

The quantity of snow fallen this month is very small, the south side of hills are now bare, and sleighing is not good. Springs are so low that farmers have found it difficult to procure water for their cattle.

EP. HOYT.

*Extract from a London Paper.*

AN eminent surgeon having been lately sent for to attend a maniac gentleman, the latter, as the surgeon was entering the room, discharged a pistol at him, loaded with a brace of bullets, which lodged in the door. Upon the precipitate retreat of the surgeon, the gentleman ran down stairs, plunged into a horse-pond, and was perfectly restored to his reason by the cold bath.



*Remark.*—The foregoing fact is so far a confirmation of the correctness of the principles laid down by Dr. CURRIE, in his "*Medical Reports*," that the efficacy of the cold bath, in convulsive disorders and insanity, is much promoted by its being employed *during the moment of convulsion or height of phrenzy*; or (as he afterwards expresses himself) its chief benefit depends on its being used in the paroxysm (or fit) of convulsion or of insanity. He also remarks, that the cold bath seems without effect, in any spasmodic disorder which does not rise to the height of convulsion. He further observes, that in cases of madness and convulsion, the disease should not be too habitual, and especially so as to produce insensibility to impression; that the fit should have a general influence on the frame, and that the digestion should not be too much impaired, nor the vigor of the circulation much debilitated, lest the action of the cold should be too strong for the living powers.

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## POETRY.

### *Agriculture.*

"THOU first of arts, source of domestic ease,  
Pride of the land, and patron of the seas,  
THRIFT AGRICULTURE! lend thy potent aid,  
Spread thy green fields where dreary forests shade;  
Where savage men pursu'd their savage prey  
Let the white flocks in verdant pastures play;  
From the bloom'd orchard and the flowery vale,  
Give thy rich fragrance to the gentle gale;  
Reward with amplest boon the laborer's-hand,  
And pour thy gladd'ning bounties o'er our land.  
COLUMBIA'S SONS, spurn not the rugged toil,  
*Your nation's glory is A CULTUR'D SOIL*;  
Rome's Cincinnatus, of illustrious birth,  
Increas'd his laurels while he till'd the earth;  
E'en China's monarch lays his sceptre down,  
Nor deems the task unworthy of the crown."

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### CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M.B.

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THE

# Medical and Agricultural Register.

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[No. 15.

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## M E D I C A L.

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For the MEDICAL AND AGRICULTURAL REGISTER.

*A certain vulgar Opinion controverted ; or,
Cotton Wool, is it poisonous or not poisonous to a Sore ? that is the
Question.*

The circumstance of having sewed up a wound with cotton yarn, there being no silk at hand, which, by certain *knowing ones* was pronounced to be bad practice, was what gave occasion to the following observations. They were, indeed, calculated to this particular circumstance, and under a certain latitude ; but, like new made almanacks, it is believed they will serve for many other places without any sensible variation.

IT is said that COTTON is poisonous to a fore. Indeed ! but who said so ? Why, it is an observation of my grandmother ; she had it of an aunt, who received it from her great-grandfather, to whom it had descended in the line of his ancestors through seventeen generations. It was first introduced into the family by an old female acquaintance ; she had it of an *unmarried elderly lady*, living in the neighborhood, who was always noted for being very ready and willing among the sick. This woman learned it of an *Itinerant* doctor, of whom she occasionally took medicines, who, as it is reported, had it of an Indian squaw, and she—*brought it into the world with her ! !*

To doubt the *propriety* of an opinion so venerable for its antiquity, may, undoubtedly, be matter of astonishment. The present, however, is an age of inquiry, and of free investigation : and however much I may abhor tyrants and kingly power, yet, in my opinion, there is no slavery more ignominious than that

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of the mind. I hope, therefore, I shall be permitted to proceed in this inquiry ; and I flatter myself, that in the end I shall be able to make it appear, that this opinion is tyrannical and oppressive ; that it is an imposition upon the human understanding ; that it is fraught with great absurdity, and sometimes with mischief.

In doing this, I shall rest the burden of my argument principally upon *one question*. It will, perhaps, be new to some of you ; indeed, *many*, I presume, never thought of it before. It is this—*What REASON is there for supposing Cotton to be poisonous to a sore ?*

Does this appear from any investigation which has ever been made of its qualities ? Do you know it from any *positive effects* of this nature, which have ever fallen under your OWN observation ? Can you discover it by tasting, by smelling, by decoction, or by tincture ? What product do you gain from it by distillation ? Scattered on bread and butter, did you ever know it answer any purpose in *destroying RATS ?*

Now, professing my high consideration and most dutiful respect for all the grandmothers, great-grandmothers, *unmarried elderly women*, &c. who either live or have lived, together with my implicit faith and most cordial belief in all their opinions, maxims, and common sayings, which they have ever taught and believed, or would have believed, many of them, had they lived to a more advanced age, except so much as relates to *cotton wool*, which being a dry, insipid, inodorous substance, perfectly destitute of any medicinal quality hitherto discovered or known, I do therefore proclaim my dissent to the idea of its being *poisonous to a wound*.

But perhaps in all this, some may suppose I am no more than *jesting* ; my intention, however, is to be *serious*, and I wish to be thought so. I consider it one of the greatest evils to medical science and medical men, that there are so many persons, who, without experience and without knowledge, are so ready to approve or condemn things in a physician of which they know nothing. I am not one of those, however, who wish to shroud themselves in darkness on medical subjects ; nor do I wish to conceal the principles of my own practice. Never would I disguise a medicine, could I know beforehand that my patient and my patient's friends were free to exercise a natural share of common sense. And as I would not like again, and on a similar occasion, to meet with so bold an interference in my professional duties, I will now attempt a plain illustration of the principles which governed my choice of cotton yarn in preference to linen, in this instance of sewing up a

wound. And first, every person, by feeling on a cotton and then on a linen rag, will discover a remarkable difference; the linen rag is exceedingly smooth and even to the touch, whereas the cotton one feels more rough and irritating. Secondly, the same person, if he will take the trouble to examine a *thread* made of cotton and another made of flax, will find the linen thread remarkably *hard*, so that by forcibly drawing it against the flesh, it may be made to cut through the skin; on the other hand, he will find the cotton thread to possess a great degree of softness, so as to be utterly incapable of any such effect. Whence this conclusion follows—that, in case of sores, where there is an extent or surface of raw flesh, and applications are made to it with an intention that it should heal over, in such cases a *linen rag* is preferable, on account of its *smoothness* being less subject to chafe and irritate the sore; where parts have been cut or divided by some sharp cutting instrument, and the intention is to retain by a ligature or stitches the divided parts together, in order that the sides of the wound may unite, in such cases *cotton yarn* is preferable on account of its *softness*, being less subject to cut and tear the flesh. A greater or a less degree of swelling, as most people must know, succeeds to every wound; as the swelling proceeds and increases, the wound inclines to gape open; in this state, the lips or edges of the wound having been previously sewed together, the skin is drawn forcibly and hard against the stitches or threads. If then the thread used in taking these stitches be of a hard, wirey nature, the skin, in that case, is exceedingly apt to be cut and torn, in consequence of which the wound gapes open, the cure is delayed, and the intention of the surgeon is defeated.

Thus have I attempted a brief illustration of this subject, and I submit it to the common understanding and apprehension of every one, if what I have said be not the truth. No more, then, of the *poison of cotton to sores*, and a thousand other things, which thwart the rational purposes and views of the physician.

Mankind are too much given to prejudice; they suck in opinions like their mother's milk, and trouble themselves no more with a consideration of their fitness, than the unthinking infant does of the food by which it is nourished or the air it breathes. Painful must it be to every mind of reflection, in certain cases, to see the credulity of human nature. Understanding is insulted, reason debased, and common sense kicked out of doors. While we possess the faculties of intelligence, let us exercise them so as to do honor to ourselves and justice to the whole human race.

Massachusetts, March 4, 1807.

OBSERVATOR.

*Of Cold Water, as a Remedy in the Scarlet Fever and
Ulcerated Sore Throat.*

THIS is that disease, which, with the greater proportion of people, is usually known by the name of *Rash*, *Canker Rash*, or *Throat Distemper*; all which, instead of being so many different diseases, as they are usually apprehended to be, are only different species of one and the same disease.*

Our business at this time, is to exhibit some of the examples and the success of the use of cold water, by affusion, in this oftentimes violent, most distressing, and very fatal disease. The bare mention of *cold water*, as a remedy in fever and other diseases, will undoubtedly bring to the recollection of the reader the name of Dr. CURRIE, who has done so much to establish a rational theory on this subject, and who at this moment is receiving the gratitude of thousands in Europe, as the rich reward of his labor and patience.

We have already, in a former number of this work,† given a brief sketch of the Doctor's practice, with this remedy, in nervous fever, together with our motives for doing it. We shall now do the same, as it respects the disease under consideration.

"Upon the attack of this disease, after some shivering and other symptoms of incipient fever, in an hour or two the heat begins to return, and speedily mounts up far beyond the temperature of health. It is on the first appearance of this high temperature, that it is necessary to act with vigor. On our conduct at this critical season, the patient's life often depends.

"The plan that I follow," observes the Doctor, "if called in at this early period, is, to strip the patient and dash four or five gallons of" cold water "over his naked body. This produces its usual cooling effects; but these are less permanent than in typhus. In one or two hours afterwards, the heat is often found, on examination, as great as before; the affusion is therefore again and again repeated, as the obstinacy of the heat may indicate. It is sometimes necessary to use it ten or twelve times in twenty-four hours. At the end of this time, but commonly earlier, the force of the fever is broken; and a few tepid affusions, at longer intervals, are sufficient to subdue it entirely. A disposition to rest and sleep follows this bold arrestation of the fever.

* "Experience decides, that the simple Scarlet Fever, the Scarlatina Anginosa, the Scarlatina (or Angina) Maligna, and the Scarlet Ulcerated Sore Throat, without the efflorescence on the skin, are merely varieties of one disease." See Dr. Willan's Third Pamphlet on Cutaneous Diseases, page 281; a very rare and valuable work.

† Page 161.

"In cases where, from the timidity of parents or the apprehensions of those with whom we are called to consult, this decisive practice cannot be fully adopted, the tepid affusion may be had recourse to, with very considerable but inferior effect. It will not arrest the disease, unless very slight, but it will moderate its violence by diminishing the heat."

The following is an example of the Doctor's practice, in the cases of two of his own children, one five and the other three years of age, in the summer of 1801. The Doctor's family was at that time in the country.

"On the morning of the 15th of August," the Doctor observes, "a message was sent me, that the eldest of the two had been restless and uneasy in the night, with feverish chills, and pain in his head and back. I saw him in seven hours from the first of these chills; he was then becoming hot, and had vomited up his tea; his face and neck were beginning to flush. The youngest brother followed him step by step, at the distance of about seven hours. The heat of the eldest soon raised the mercury of the thermometer to 106° , 107° , and 108° , [98° is about the usual temperature of health] and in both the symptoms prognosticated a violent disease. I shut myself up with these boys entirely; and with plenty of pump water and a pocket thermometer, I prepared, not without anxiety, to combat this formidable disease. As soon as the sensation of heat was steady in my oldest boy, I stripped him naked, and poured four gallons of water over him of the temperature of 64° . The usual good effects immediately appeared, but at the end of two hours he was as hot as ever; the remedy was again applied, and repeated as the return of heat indicated. By the time the eldest was ready for his third affusion, the youngest was ready for his first. The heat rose in the eldest to 109° , in the youngest to 108° , and the pulse in each was upwards of 150. In thirty-two hours the first had the affusion fourteen times; eight times cold, twice cool, and four times tepid. Twelve affusions sufficed in the case of the youngest, of which seven were cold. The fever was in both completely subdued."

Such is the Doctor's practice in his own family. Hence, and from many other facts, examples, and cases, presented in his "*Medical Reports*," it appears, that *cold water*, JUDICIOUSLY applied, will, under certain circumstances, extinguish *fever* no less than fire.

We have been induced to take this view of the subject, in consequence of a letter from a much respected friend, who is express in recommendation of this practice, having seen the success of it in the town where he lives. We shall conclude with an extract from this gentleman's letter.

*Extract of a private Letter from a Gentleman of great respectability to the Editor, dated * * * *, September 18, 1806.*

As the Throat Distemper (as it is called in this country) is a very destructive malady, I was surprised to find, in the essay on the *Angina Maligna*, published in your fourth number,* that no mention was made of the external use of cold water for its cure, or even for its relief. Dr. Currie, in the third edition of his "*Medical Reports*," most expressly extols its use in this disease; in consequence of the success which has attended the employment of it by himself and by professor Gregory, each in the case of *several of his own children*; confirmed by a considerable variety of instances in the practice of himself and others. The remedy has been applied in this town without any inconvenience; but the heat of the skin has not been sufficient to justify its repetition, unless in one case, when cold water was thrown over a child five times in twenty-four hours, with the happiest result, as it terminated in a perfect cure. It is said also, that some one in the interior of the country has had similar good fortune, in repeated instances.

AGRICULTURAL.

For the MEDICAL AND AGRICULTURAL REGISTER.

Of Clover, and its great Importance in Agriculture.

CLOVER is univesally known as being an excellent grass; but how much farmers have it in their power to improve their farms by means of this fertilizing plant, is not generally known in these New England States.

"The seed of clover was first brought to England from Brabant in Flanders, soon after the conclusion of the horrible civil wars, occasioned by the rival claims of the houses of York and Lancaster; and the circumstance of its being brought originally from Flanders, has given it the name of *Flanders grass*. The introduction and cultivation of this grass in England, so exceedingly altered and improved the face of the country, in a very few years, that it was thought to have indemnified the nation, in point of property, for the ravages and wastes of the [then] late wars.

* Page 49.

"The white clover makes the best of pasture. It nourishes and fattens animals beyond any other grass. It gives a rich and delicious flavor to mutton, and to the milk of cows, and produces butter and cheese of the highest excellence.—The red clover, while it produces the best hay for horses, at the same time, enriches the ground. As it is tap-rooted, like the carrot, it draws a portion of its nourishment from a depth below the surface, to which the roots of most other plants do not extend; and after the sward is turned over by the plough, and the roots of this clover are dissolved, they make a fine manure, and in a measure prepare the ground for wheat, or almost any other crop."

"One of the cheapest and most obvious improvements," observes a writer of the middle States, "and to which England is more indebted than to any other, is the sowing of grass seeds, and particularly clover, and putting in their wheat upon a clover lay instead of an expensive fallow." The practice is as follows: The clover field, having been mowed or fed off, is generally turned up the *second year* of its having been laid down to grass. The ploughing takes place a little before the time of sowing the wheat. A second ploughing would be of material injury, as is abundantly proved by experiment. About eighteen or twenty days from the time of ploughing, the weather and other circumstances being favorable, the roots of the clover will have begun to rot. This is the exact time to put in the wheat. The land is previously harrowed in a direction *with the furrows*, the wheat sown and harrowed in, without so much, if possible, as turning up or moving from its bed a single furrow. This is what is called sowing or putting in wheat *upon a clover lay*, and is considered one of the greatest improvements in modern agriculture. Even in the middle States, in pursuance of this practice, together with the use of gypsum, the face of the country, in many places, has been entirely renovated, and what before was a barren field is now converted to a fruitful soil.

There are many tracts of pine land in these New England States, which, generally, are never seeded with grass, and which it is believed might be improved much in the same way, excepting perhaps the substituting of rye for wheat. I have myself seen as fine clover growing on some of these pine lands, as upon any lands whatever, after they had been brought into a proper state of fertilization. In the middle States, I believe about one half of the clover seed intended to be put in, is sowed at the time of sowing the wheat; the other half is reserved and sowed about the time of the going off of the snow in the spring. In this way they are rarely if ever disappointed, and generally take one cutting of grass some time after taking off the wheat.

A FRIEND TO IMPROVEMENTS.

A Comparison between the Advantages and Disadvantages of Agriculture in Britain and in America. By ROBERT R. LIVINGSTON, Esq.

THE first advantage England possesses, consists in her early spring; this enables the farmer to commence his work sooner than he can in this country: to this cause it is owing, that such crops as require early sowing on a well prepared fallow, succeed better in Britain than here. Barley, for instance, requires four good spring ploughings, and yet should be put in by the first of May; this cannot be done here, except upon very light lands, our clays being hardly fit to plough before May; but light land will not produce good barley without manure. In England it may be raised to advantage on strong loams, and even on clay. It is for this reason that barley is nearly as cheap in England as here, though every other grain is nearly sixty per cent. dearer than in America. The same reasoning applies to beans, which are unproductive in England, unless sown in February and March, which is hardly possible here on strong clays, the soil these require. Turnips cannot be raised in our climate to advantage, as a food for cattle; the season in which they are sown being usually very dry, and the plants liable to be destroyed by the fly.

Great Britain has also some advantage over us in the shortness of the winter, but much less than is generally imagined. Their autumn is cold and wet; and though there is some apparent verdure, yet the vegetation is so slow, as to render it usual for good farmers to house their cattle by the first of November, rather than suffer them to poach their fields, in gleanings a scanty subsistence from them; nor do they turn them to pasture till late in April.

These, I believe, are all the advantages that the British farmers fairly claim over us. Let us now examine those we exclusively possess. The noblest of these is the *maize*, or Indian corn [which does not grow in England.] Neither the beans* or turnips* of Britain can be compared with this plant. First, it need not be planted till the last of May, so that the farmer is never hurried by it with his spring work. Secondly, it is cultivated with a plough or horse-hoe; and as the plants are large, and placed at five feet distance, there is ample room for this; and though it is also usual to hand hoe, yet, as this is done after the ground is loosened by the plough, and when the plant is a foot high, and then only just about the stem, it is easier to hoe ten acres of this than one of the turnips or beans. Thirdly, it

* Both these (beans and turnips) are important crops in England, for the feeding of horses, cattle, and sheep.—E.

defies the drought, and never fails to make ample returns to the husbandman that cultivates it with diligence; forty bushels an acre being a common yield when well tended, and from sixty to seventy in a good soil and in the best state of cultivation. The grain furnishes a palatable and nutritious food for man, and is greatly superior to any other species for farm stock. And while bean-haulm is of little value, the tops and blades of maize are not inferior, if gathered in season, to the best hay; and as this crop is easily and necessarily kept clean, it is the best of all fallow crops.

The want of turnips in this country, may be amply compensated by carrots, which may be raised at less expense here than in Britain, because we have much fewer weeds, which are the greatest enemies to that root; by cabbages and potatoes, which grow well here; and by pumpkins, which are raised in very considerable quantities in our Indian corn fields, without any other expense than that of dropping a few seeds in the hills and carting the crop. Nor can I help recommending them as a rich and nutritious food, that will save two month's hay, if used in the beginning of winter, and afford milk and butter equal in quantity and quality to the finest pasture.

These legumines would not be so much neglected here as they generally are, were it not that hay is made in this country at half the expense that it requires in the moist climates of Britain. Vegetation there is extremely slow; their spring is nearly one month earlier than ours; yet, though their wheat begins to grow in March, it is not reaped till late in August; ours is cut six weeks earlier, though it does not begin to vegetate till late in April; so that it takes five and one half months in Britain, to perfect a crop which is performed here in little better than three. The same causes influence the growth of grass. In soils, therefore, of equal quality, much less will grow in a given time in Britain than in America, as I infer from the general average of their clover and natural grass in not exceeding ours, though they are longer in a growing state. It is true, that the moisture of the climate, and mild winters, give a great verdure to their fields at some seasons; but this is only an apparent advantage, which deceives superficial observers, while it is attended with real inconveniences; first, the grass itself is by that circumstance rendered less nutritious, as is well known by every farmer; secondly, while the hay is lighter, it is got in at more expense than ours, which is made at the driest season of the year. In our crops of grain we enjoy similar advantages; their harvests are frequently wet, while nine years in ten ours is got in without the least obstruction from rain. The produce would also, I am well satisfied, be greater here than in England, on highly cultivated soils, since it is well known

that the strength of the straw depends upon the dryness of the season. In a moist climate, therefore, without sufficient sun to harden the straw, heavy crops must be very often injured by lodging, especially if we take into consideration, that high winds are much more usual in Great Britain than here. Blight and mildew are effects of a moist climate. These are seldom and partially known in this country, prevailing only in particular districts, in extraordinary seasons. In Britain it often happens, that wet weather, when the wheat is in blossom, affects all the wheat in the kingdom, many parts of which, on this account, do not pretend to raise it.

If vegetation is slower in Britain than here, and if the grass is also less nutritious, it must follow, that with the same attention to stock our pastures with the best grass, and to keep the cattle out of them at improper seasons, a larger stock may be maintained on the same quantity of ground in this country than in England; and thus the difference in the length of our winter be amply compensated. This observation leads me to a circumstance in British husbandry, which might be advantageously practised by us. Many of their farmers sow rye, for the use of their sheep and lambs, in the spring. In order to do this, they must be at the expense of a fallow; and as their rye grows two-fifths slower than ours, it must follow, that they can only keep three sheep where we may have five. If, therefore, this practice is advantageous in England, it would be much more so in America, to sow our corn fields with rye, to feed off with sheep in the spring, not only because of the additional numbers we can keep, but because we are more pinched for sheep-food in the spring; besides that, the rye that costs the British farmer a complete fallow, costs us nothing but the seed, if sown among the corn when it is topped. As five sheep will leave more manure than three, the rye field so fed down, will be left in better order here than it would be in England.

In the healthfulness of our stock, we have great advantages over Britain. Among our black cattle I have been told that some disorders prevail, though they are so extremely rare, that in twenty years since I commenced farming, I do not recollect to have lost one creature, unless it were by some accidental hurt; nor have I known any others to die among my neighbors, except from the same cause, or bad keeping in the spring; and while the rot sweeps away whole flocks of sheep in Britain, it is a disorder entirely unknown in this country.

All these natural advantages being in favor of the American farmer, I shall be asked how it happens that the lands in Britain are more productive? The answer is, More labor is expended upon less land there; and the product is always in proportion to the labor, the soil, and the climate.

MISCELLANEOUS ARTICLES.

For the MEDICAL AND AGRICULTURAL REGISTER.

Of Bots, and the proper Treatment of Horses affected by them.

By Dr. ROWLAND GREEN.

DR. ADAMS,

WHEN I forwarded the communication respecting the horse bee, I then thought never to write one syllable again on the subject. Since that time, I have been requested, by some of your subscribers, to reply to some pieces, which have appeared in the Register, on the same subject; and having a propensity to aid the cause of inquiry, I have attempted it. The gentlemen who have communicated on the subject are thanked, and I hope will be excited to further investigation.

In addition to what was said in Register No. 4, respecting the removal of bots from the horse's stomach, it may not be improper to observe, that it is difficult to physic a horse effectually, that a larger quantity is required than is generally thought necessary, and that calomel, given in quantities of half an ounce, seldom has any effect on bots, except in their infant state, and even then it is to be doubted whether it will be generally effectual. Horses do not commonly manifest symptoms of bots, until the insects have considerably advanced towards their full growth, and then physic, however useful in removing inflammation, will have little effect in removing them from the stomach.

With respect to *blood-letting*, it is easily performed with a phlebotomy in the jugular veins. Bleeding in the mouth is improper, as the quantity taken cannot be known. When a horse is diseased with bots, large bleedings are necessary, as small losses of blood answer no valuable purpose. We ought not to suppose that blood-letting is not a proper remedy, because it does not always cure: it ought to be the first *resort*, and not the last, when every prescription is unavailing. Time and opportunity are lost, by those who tamper with a sick horse, day after day, tormenting him with frequent drenches, with a view to remove the insects from the stomach, until the poor animal sinks irrecoverably, either from the pressure of disease, or the improper prescriptions, or both. About the 10th of March, 1806, a small horse was seized with the symptoms of bots.

The symptoms, especially the cough, increased rapidly to the 15th, at which time six pints of blood was taken from one of the jugular veins: this moderated the symptoms; but it was thought proper to take more blood, and on the 17th six pints more was taken, and seemed to perfect the cure. The horse was fit for common labor in a few days, and no symptom of disease remained. The inflammatory affection of the lungs was removed, and not the bots, which were the cause of that affection. However, as the bots were not removed, but continued to prey upon the stomach, all the symptoms were liable to recur again, so long as the insects remained there, and continued to act. And this took place: for towards the end of May, the symptoms again appeared, and increased to the 2d of June, when seven pints of blood was taken, on which all the symptoms disappeared, and have never since occurred; neither was it greatly to be expected from the same crop of insects, for in the months of June and July they pass off, and seek an asylum in the earth.

Some suppose that no prescription is of any use, except it removes the insects; but let those gentlemen reflect, how often they have seen children laboring under inflammatory symptoms, caused as they say (and perhaps rightly) by worms; they have administered antiphlogistics, and the patients have recovered, without the loss of a single worm. It is a fact, that many complaints, arising from irritation, may be mitigated, and the patients made comfortable, when the cause of that irritation cannot be immediately removed.

In making experiments and observations, we "ought to be divested of all partiality, have no favorite hypothesis to support, and to have no view but the discovery of truth." "Superficial observations are apt to lead into error, and often contribute to raise the reputation of foolish prescriptions."

In Register No. 6, salt is mentioned as a preventive means, also certain preparations of mercury. From a number of experiments, it appears, that the frequent or daily application of strong brine to the parts where the bee places her eggs, is no bar to prevent her object, neither will it injure the eggs. September 6, 1806, immersed a number of eggs in strong brine, and after twenty-four hours had elapsed they were taken out, and on the 16th were examined, and found to contain the insects in good health. Salt is undoubtedly good for a horse, but that it is useful to prevent bots from injuring him is not probable. The daily application of mercurial ointment, so powerful in destroying vermin, will not entirely prevent the bee from her design, yet it may destroy the eggs; but in this way, it

would be expensive as well as disagreeable, and fall far short of that simple and easy plan of scraping them off with a knife.* Mercury is not so effectual in destroying bots as is generally thought. September 16, 1806, immersed a number of small bots, with one which was full grown, in a strong solution of corrosive sublimate; the small bots died in about sixty minutes, but the full grown one was taken out six hours after its immersion apparently unhurt.

In Register No. 10, alum water is recommended to be "effectual to detach bots from the coats of the horse's stomach," &c. "But (says the writer) when the bots have worked through the coats of the stomach, he cannot be cured with alum water; but if it be given before the bots have worked holes through the coats of the stomach, the horse soon recovers." Mr. Harrington speaks with great confidence in alum water; he says, "it never has failed with him." Others, perhaps, have spoken with as much confidence in rum, tobacco, aloes, &c. &c. Some time since experiments were made on bots with alum, but the minutes are lost, and all that is recollected is, that the result was such as gave no confidence in it.—A gentleman in this vicinity, in December last, had a horse seized with symptoms of bots, and was directed to try Mr. Harrington's alum process, which he did with exactness, and the horse died the following night. On opening the stomach, &c. numerous small bots appeared, but the coats of the stomach were not perforated, and in fact, the stomach was less injured than is usually the case. The bots were small, and had "worked" no "holes" in the stomach; but had produced much irritation. The lungs were affected as usual. If alum could have any effect on bots, surely this was a favorable case: the bots were young, small, and lay in a situation favorable to be acted upon by it; but the bots kept their hold; the alum did not detach them from the stomach. Can alum be useful in cases where the lungs are affected with inflammation and its consequences? If the affection of the lungs had been removed, it is highly probable that the horse would not have died. It is not here suggested, that alum was the cause of the horse's death, but that it is an improper prescription to cure a horse, when inflammation, &c. seems to be the immediate cause of death.

Mr. Harrington further says, that the smaller species of horse bee "produces only the worms." If this is true, the worms must produce the bee. Experiment and observation prove otherwise. A bee of the smaller species was known to proceed

* See page 58.

from a bot, which was secured in a glass vessel, while in its chrysalis state.

We are informed, that in some cases the coats of the stomach are perforated by the insects; and if our information is correct, in such cases there can be no remedy. But some may suppose that such cases are incompatible with life—that the animal dies before such destruction of the stomach can take place; however, the presumption is, that such cases are seldom, and ought not to dissuade us from using proper means to preserve the life of that useful and noble animal. The practice of forcing into the stomach inflammatory articles, as rum, &c. and even boiling water, (which has been done) approximates to savage barbarity, without answering one valuable purpose.

Upon a moderate calculation, there dies annually 200 horses, in the State of Massachusetts, by means of bots; at the moderate price of 50 dollars each, the total amount of loss will be 10,000 dollars: certainly worth preserving. The preventive means (see page 58) are easy and certain; but when neglected, and disease has taken place, the remedy is doubtful.

The writer of this paper was informed by an observing man, who is in a line of seeing horses diseased with bots, that “he had tried repeatedly, every method generally proposed, to detach bots from the stomach, and had witnessed their inefficacy;” that “he had frequently noticed, that horses diseased with bots had a feverish heat;” and that, “in his opinion, bleeding largely, in the first stages of the disease, is the only known remedy, and by which he had frequently succeeded.”

R. GREEN, JUN.

Mansfield, February 3, 1807.

Result of Meteorological and other Observations, for February, 1807; made at Deerfield, Warwick, Portsmouth, Hartford, and Boston.

Feb. 1807.	Mean degs. at sun-rise.	Mean degs. at 9 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	17 $\frac{1}{2}$	31 $\frac{1}{2}$	24 $\frac{1}{2}$	13 day, 50°	9 day, 14°	N. W.			1
Warwick	14	27 $\frac{1}{2}$	20 $\frac{1}{2}$	12 44	8 10°	N. W.	1	5	2
Portsmouth	21	30 $\frac{1}{2}$	25 $\frac{1}{2}$	14 48	8 10°	N. W.			
Hartford	16 $\frac{1}{2}$	33 $\frac{1}{2}$	25 $\frac{1}{2}$	12 49	9 10°	N. W.			
Boston	21	31 $\frac{1}{2}$	26 $\frac{1}{2}$	12, 14, 15 44	8, 9 10°	N. W.			

WEATHER.

1 — <i>Sund.</i> rain last night ; a great fresheet ; snow, fair ; rivers broke up ; ice 2 feet thick	15 — <i>Sund.</i> rain con- <i>by first quarter.</i> tinued ; a remarkable fresheet ; a great destruction of mills, bridges, &c. fair P. M. vio- lent winds in the night
2 — a little snow, fair	16* } fair and
3* } fair	17* } cold
4* } and	18 — snow, rain ; a rainy night
5* } cold	19 } fair,
6* — snow	20* }
7* } fair	21* } brisk
8* } <i>Sund.</i> and	22 } <i>Sund.</i> <i>Full Moon.</i>
9* } cold	23 } winds
10 } hazy weather,	24 — cloudy, night snow, 4 to 8 in.
11 } clouds	25 }
12 } and some	26 } fair
13 } sunshine	27 }
14 — violent rain all day and night	28 — overcast

Depth of water fallen in rain, *Warwick*, 5,75 inches ; snow, 13 inches.

Warwick, February 28, 1807.

This month has been cold ; some very heavy rains, and streams of water uncommonly high ; snow mostly dissolved and formed into solid ice ; sleighing tolerably good the greatest part of the month. Hay scarce.

Healthy except bad colds, which are met with more or less in almost every family. W. C.

Hartford, February 28, 1807.

Mean degree of the three winter months, 25.72. The winter unusually cold : not so much snow as some years, but steady cold.—Healthy in Hartford.

Deerfield, February 28, 1807.

We have had several violent rains this month, and as the ground was covered with ice, very little water penetrated the earth, but ran into the rivers and produced sudden freshets ; by the enormous piles of ice brought down by these, much damage has been sustained, in this and some of the adjacent towns, in the destruction of mill-dams, bridges, &c. which have been swept off. It is believed that the damage done throughout New England, is greater than that of any year since the settlement of the country. The ground is still covered with ice, but very little snow remains.

The month has been as healthy as usual. EP. HOYT.

* Days of continued frost, according to observations made at *Boston* ; or, days on which the range of the thermometer, through the whole twenty-four hours, was below 32°, or the freezing point.

N O T E S.

To AGENTS for the Register.

THE mails going out from Boston are generally crowded or full, so that the Register, for all those places where it is wished, cannot be received at the post-office in this town, on the day of publication. Many of our Agents, who have been in the habit of receiving their Registers by mail, could, perhaps, as conveniently receive them by stage, or by the coasters, or, where they have frequent opportunities of sending into town, by private persons. In either of these, or any such way, which they could in future adopt, and would be so good as to order, it would oblige us; as, so doing, it would make room, and afford us a better opportunity of accommodating those who are in situations to receive the Register no other way than by mail. Any direction respecting their bundles and the places of having them left, for

stages or coasters, shall be faithfully attended to. And in respect to the Registers which shall continue to be sent by mail, we shall be under a necessity of being one or two weeks in getting them out, and this sooner or later, according as there may be room for receiving them in the mails; so that those of our agents and subscribers who are depending for them in this way, are not to be disappointed, if they do not receive the Register the first or second week of its publication. We shall endeavor, however, in all instances, to be so far in season, that each number shall be received before another becomes due. Numbers which have been or shall be miscarried and lost, as is sometimes the case, may be ordered again at a convenient opportunity, and shall be supplied anew.

Bill of Mortality.

We must be allowed to express our regret, in not having been more generally favored with the attention of gentlemen of the clergy, in furnishing us with the materials for a *Bill of Mortality*, where they have it in their power. Something short of twenty is

the number of returns which have been received. We shall delay making any use of these at present, hoping still that other gentlemen, from considerations of public utility, will be induced yet to comply with our solicitations.

To Correspondents.

The parody by "*A Youth*," possesses ingenuity, but as we apprehend it might by some be thought to carry reflections different from the meaning and intention of the author, we hope we shall be excused in not giving it a place.—A communication from the Rev. T.

FLINT, on the subject of improving meadow lands, was received too late for this number; it shall appear in our next.—Also, our Fitchburg correspondent is thanked for his attention; his communication, however, is necessarily deferred to the next number.

CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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THE
Medical and Agricultural Register.

VOL. I.]

APRIL, 1807.

[No. 16.]

M E D I C A L.

For the MEDICAL AND AGRICULTURAL REGISTER.

Medical Extracts, No. III.

Beauty improved.—TO improve and beautify the skin, is an object worthy of attention, and is productive of many useful consequences. The face is the index to the body, and nature has so determined, that internal disease is manifested in the countenance. Cleanliness and flexibility of the skin are some of the principal requisites to the health and comfort of the individual. Uncleanliness, sedentary employments, many articles of diet, intemperance, impure air, and warm liquids, contribute to render the skin unfit to discharge the impure fluids, which, if retained in the body, are liable to settle on it, and produce eruptions. Habitual sore eyes, red noses, and eruptive faces, generally speak in a language not hard to be understood. Eating chalk, drinking vinegar, applying preparations of mercury or lead, or any artificial quack cosmetic whatever, with a view to improve the skin, is very unsafe, and falls short of the object. If there is any cosmetic in nature, it is water; which is safe, easy to be obtained, and never fails to produce good effects. Water ought to be used freely and frequently: but an African may as well be bleached, as to remove eruptions from the face, without bestowing due attention to the state of the body.

To improve the skin, three things are necessary:—

I. Due attention to insensible perspiration, which is an important process, by which nature expels hurtful and useless particles; it keeps the skin soft and pliant, animating it with

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the vigor of life. The healthy individual perspires daily above three pounds of impure fluid; and no disease can be cured without the co-operation of the skin, the conductor of perspiration, the organ to purify the fluids. Exercise promotes a free perspiration. Bathing is an excellent specific, as it cleans and enlivens the skin, and fits it to perform its office; refreshes the mind, and gives a sensation of ease, activity, and cheerfulness; removes stagnated fluids in the capillary vessels, and promotes a uniform circulation of the blood; preserves the solids soft and flexible, and is a powerful means of preserving beauty. Avoid uncleanness, sudden changes of heat and cold, and impure air, all which retard perspiration.

2. Purity of the fluids. This depends on a free perspiration, and a sound state of digestion. The healthy stomach can only produce healthy fluids; hence it ought never to be overloaded with fat and crude articles, or inundated with large quantities of warm tea or coffee. Animal food, when copiously used, disposes the fluids to an impure state, creates a bad breath, and renders men more bold and sanguinary in their tempers; all which is manifested in carnivorous animals. Large quantities of tea or coffee weaken the powers of digestion, especially if taken hot. If tea is made too weak, it operates like warm water, relaxes the stomach; and if made too strong, gives unnatural heat, and produces tremblings. The immoderate use of coffee is also injurious, leading to nervous diseases and eruptions in the face. A nourishing diet, consisting principally of farinaceous substances, and a small proportion of animal food will be proper, and is one of the surest means of preserving *health* and obtaining *long life*. Tea or coffee, if made neither too strong nor too weak, may be moderately used, if taken not too warm.

3. Equal distribution of the fluids. When the blood is profusely thrown to the face, it produces unnatural redness and flushings. Avoid the frequent use of every kind of heating liquor, as punch, wine, &c. but especially abstain from the free use of ardent spirits, that liquid fire, which destroys an equal distribution of the blood, parches the skin, removes a fair complexion, and substitutes a peculiar color, which has been figuratively called the morocco in the face.

Air.—Air is that colorless, transparent, elastic, compressible, and heavy fluid, which surrounds the earth, and is called atmosphere. It supports animal life, pervades all animate and inanimate matter, and combines with a variety of foreign ingredients. It contains water in solution, by which it combines with salts; it is frequently saturated with putrid exhalations. Every

foot square of our Bodies sustains a quantity of air equal to 2660 pounds; and the difference of pressure which we sustain, at different times, is very great. When all foreign ingredients are separated from the air, it still remains a compound fluid, consisting of three different species; oxygene (pure air) azote (mephitic or impure air) and carbonic acid (fixed air.) In one hundred parts of atmospheric air, there are seventy-two of azote, twenty-seven of oxygene, and one of carbonic acid.

Oxygene is respirable, supports life, gives the red color to the blood, and promotes combustion. A candle will burn longer in it, and with greater heat and more brilliant flame, than in common air. Animals live in it six or seven times longer than in atmospheric air. All acids have it for their basis. It is exhaled from vegetables when exposed to the sun.

Azote is irrespirable, destroys animal life, extinguishes fire, and greatly promotes the growth of vegetables. A candle will not burn in it. It arises from every change which atmospheric air undergoes in combustion, putrefaction, and respiration. It accumulates in apartments filled with people, or containing articles newly painted with oil colors, or in which fragrant flowers are kept, without having access to fresh air. All such places are unhealthy.

Carbonic acid is unfit for respiration; animals cannot live in it: neither is it proper for vegetation. It extinguishes fire, and has a suffocative power. It arises by fermentation of vegetable matters. It exists in combination with chalk, lime-stone, and alkalies. It is one ingredient in mineral waters, and when taken gives energy to the stomach. Fermented liquors contain a portion of it, and receive from it a pungency which is agreeable to the palate. It has occasioned suffocation, on opening tight cellars, where large quantities of wine, cider, or beer were suffered to ferment.

Hydrogene or inflammable air is not a constituent part of the atmosphere. It does not maintain combustion, but takes fire when in contact with common air, by the application of a body already heated. Combined with oxygene, it forms water. It destroys animal life, by producing convulsions. It is generated in the intestines, mines, burying-grounds, stagnant waters, and swamps where plants are putrifying. It has caused sudden death, on opening deep pits, descending certain wells, and other confined places.

Carbonic acid is heavier than oxygene or azote, both of which are heavier than common air, and hydrogene is lightest of all.

The mass of the atmosphere is corrupted, by the respiration of men and animals, dissolution and putrefaction of substances,

and would at length become incompetent for its original defiguration, if nature had not provided for its restoration, by the growth and vegetation of plants, cold of winter, &c. Most plants correct bad air when exposed to the light of the sun, by exhaling oxygene; on the contrary, they corrupt the air during the night, or in the shade, by exhaling impure air: but on the whole, there is a vast balance of oxygene produced, for the azote generated by a plant during a whole night scarcely amounts to a hundredth part of the oxygene exhaled from the same plant in two hours in a fair day. The cold of winter interrupts the growth of plants, and effectually stops the progress of putrefaction.

Warm air relaxes, oppresses the nerves, and quickens the circulation; but cold renders the body more compact, increases the appetite, and strengthens the powers of digestion. Damp air relaxes and debilitates, occasions a slowness in the circulation, impedes perspiration, and depresses both the body and mind. Damp places are unhealthy in cold weather, but more so in warm; moisture impairs the energy, and heat increases the evil, by opening the pores, through which the moisture penetrates the body. Dry and cold air promotes serenity both of body and mind. Dry and hot air affects like heat, enervates the body. Sudden transitions from cold to hot, or from hot to cold air, are injurious, especially the latter. Exchange of bad air for that which is healthy, is safe at all times.

Among the different winds (which are strong commotions of air) the north is comparatively the most wholesome; it purifies the atmosphere, renders the air dry and serene, and imparts to the body vigor, activity, and a lively color. The south wind relaxes and weakens. Too dry weather is more healthy than that which is too moist. Of the four seasons, the autumn is the most unhealthy; vegetation is declining, and the air is filled with corrupted particles. If the temperature of the air correspond with the natural constitution of the season, we may expect health; on the contrary, disease. All strong scented bodies, of whatever nature, render the air impure, and are many times injurious to delicate constitutions. The local constitution of the air, depends not only on the exhalations of the soil, but also on the different vapors blended with it, by the wind from adjoining places. A dry and sandy town, healthy of itself, may be rendered very unhealthy from the vicinity of marshes and stagnant waters. The air of every climate, cold, temperate, or hot, may be healthy, provided it be pure and clear, occasionally agitated by winds; but a gross atmosphere, loaded with animal and vegetable exhalations, is deleterious. A country producing good water, generally has a salubrious

air; and as the best water is tasteless, so the best air is without smell.

It is of the utmost consequence that the air should be good in dwelling-houses, and this cannot be expected where cleanliness is not observed. Rooms, and especially bed-rooms, should be well aired, by opening the windows daily in fair weather. A free current of air should pass through sleeping rooms every day, even in the winter. If the weather be good, the windows should be opened early in the morning, and be shut at sunset, or when the room is properly aired, or when there is more danger to be apprehended from the external air than the internal. It is no small hazard to leave the windows open during the night, in the summer time; perspiration may be checked and disease ensue. In houses which are surrounded with trees and plants, it will be proper to shut the windows at sunset, and if hazy weather, before, and not to open them until after sunrise. It is unhealthy to sleep in a room where there are quantities of green fruit, provisions, or goods of any kind; they all render the air impure. Unclean linen taints the air, and should never be suffered to remain in a sleeping room. Cleanliness is a Christian virtue, and no person can be amiable without it.

Every room is filled with three different strata of air: first, the lowest is the heaviest, the carbonic acid gas; second, the middle is the lightest atmospheric air; and third, the uppermost is the lightest or inflammable, and the most impure of the three, in consequence of respiration, &c. In lofty apartments this uppermost stratum is not inspired, the second being higher than the height of a man, and is the most wholesome. The burning of oil and candles corrupts the air, and the vapor of charcoal is very unhealthy, especially in close apartments, producing stupor and death. Plants and flowers may be placed in dwelling rooms exposed to the sun, but they ought to be removed at sunset. Large trees with a thick foliage should not be planted near the windows; they obstruct the light and fresh air, and thus tend to make the rooms damp, and their exhalations in the night are unhealthy. Trees planted eight or nine yards from the house are useful, as they do not obstruct the light and air, but afford a cooling shade in summer, emitting salubrious exhalations during the day. Feather beds have a tendency to corrupt the air, and should not be used in warm weather; but if used, they ought to be well aired every day. We ought to avoid sudden transitions from hot to cold air, and endeavor to accommodate our dress to the temperature of the air, and not to the follies of fashion.

Charlatanical imposture.—That “the practice of physic has been taken up by the lazy and ignorant,” and that “charlatanical imposture has kept pace with the credulity” of the age, needs no proof. “A reformation of the abuses in the practice of physic” is very desirable, and “ought to be attempted and prosecuted with zeal.” The practice of physic requires a strong mind, sound judgment, and natural acuteness. A judicious physician considers himself merely an assistant to nature; when her force is sufficient, he leaves her to perform the cure. But some never leave kind nature to herself; but fall to work with the lancet and emetics, cathartics and blisters, tonics and sedatives, pills and powders, and hence never know the utility of any thing. They seem to forget, that the great art of administering medicines, is in well timing them, and regulating the dose or quantity, so as to have the desired effect. Danger is to be apprehended from the unprincipled, who are superficial in knowledge and judgment, and have impudence enough to place themselves above embarrassment. There are some who imagine they understand the nature of every disease, and have an enthusiastic notion of the powers of their prescriptions, and are never disturbed with doubt, having an arcanum for almost every disease, however incurable in its nature, pretending to the power of taking a malignant disease out of nature’s hands, and restoring health to the patient in a surprising manner; but mark, reader, these are among the superficial and ostentatious. Some are in a habit of boasting of the many extraordinary cures they have done, the vast quantity of business on their hands, the surprising efficacy of their powders and plasters, even to disarm the cancer of its sting, &c. &c. but they do not tell of those who by their means are removed from time: these bring conjectures for facts, and assertions for proofs. Some are always troubled with bad cases, and are always telling how very, amazing sick their patients are, black, putrid, bilious, very sick indeed, sickest ever seen, &c.: but this is in order to enhance the credit of their prescriptions, if the patient should recover, and secure a retreat from blame, if he should die; but this is mean and illiberal, and discovers great deficiency. A wise physician will aim for the truth, and exercise that liberality and benevolence which ever command respect.

G—,

April, 1807.

AGRICULTURAL.

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### *Further Observations on paring and burning Meadow Lands.*

*By the Rev. T. FLINT.*

DR. ADAMS,

A WRITER in a late Register, over the signature of "Patience," controverts the mode of tilling meadows which I attempted to describe. Why he has been pleased to entitle it "my improvement," or why he has said, "I seem to suppose I may recommend it confidently," I am at a loss to say. Nothing which I advanced, I trust, will warrant either. If, however, to have a full persuasion myself of its utility, make it "my improvement," and "recommend it confidently" to others, be it so. Nor are the objections, though perhaps more forcibly and happily stated, new to those who have so cultivated their meadows. The process in question has struggled through them all, and in this place has vanquished its enemies: indeed, in five years time it has more than repaid the original value of the land.

The remarks of "Patience" seem to result from a hasty decision, and display more of the orator than the reflecting agriculturalist. Omitting mere declamation, and selecting what is to the point, there remains four or five sentences, in which are these objections. First, This method lowers meadows; they should be raised. Secondly, Ashes are pernicious upon wet lands.

We admit that meadows should be effectually drained. First advantage of the disputed process. It radically drains the meadow, leaves it almost as dry as high lands; and conclusive proof of this is, that on all meadows so cultivated, the finest crops of rye have been raised. No vegetable is sooner injured by stagnant water than rye.

We do not "recommend" this tillage upon level interval meadows, which are already covered with seeded grasses; but upon deep, mossy, cold, sunken meadows, covered with clumps and haffocks, from which rise coarse and reedy grasses, which cling so closely to the soil, that no other tillage will eradicate them. If the elevation of a meadow of this aspect were, on an average, five inches above the stream which waters it, we contend, that it would be drier after this process, and after losing by it two of those five inches, without any ditching whatever, than in its natural state. And why? Because it would be



cleared of moss, as retentive of water as a sponge, and its numberless circular hafts, indenting it with a thousand little ponds, which find no escape between the obstructing hafts, except by evaporation during the sultry months. And a formidable objection to the plan of covering it with earth from the high lands, is this:—You must cover it from twelve to eighteen inches deep, to bury the hafts; which, if not buried very deep, would only shoot out their grasses with more luxuriance. But the process before us not only tends to drain the meadow, by removing obstacles which impede the passage of water, and moss which retains it, and indentations scooped out to hold it; but it always supposes ditches at regular intervals, communicating with the main ditch, of two or three feet depth, and continued in the main ditch to a water fall. Where the meadow is extensive, and owned by different people, mutual advantage will call them to unite, in order to lead the main ditch to a water fall. The surface is thus raised from ten to fifteen inches above the ordinary elevation of water in the ditches. But we can recur to no argument more evincive of the draining tendency of this tillage, than the fact, that rye always has flourished after it.

But while we admit with "Patience," that redundant water is injurious, we contest his dogma, that it is the general and chief cause of sterility in meadows. Is not what is called with great propriety the "wild nature," little bushes, white moss, polypod, bucks-horn, brakes, cranberry vines, hafts filled with roots, as tough as twine, attaching themselves so closely to the soil as to defy the plough and competition from better grasses? Let those who have remarked the general aspect of barren meadows in this State, say, if these are not the prevailing cause of sterility.

It is meadows of this description to which this tillage has been chiefly applied. They have a soil from three to eight feet deep above the pan. This soil has been forming from creation, from the deposit of rivulets and rills, turbid with leaves and the finer and richer particles of earth, swept from the adjacent high lands. In meadows ditched the past autumn, leaves, making a considerable proportion of the soil, were found at the depth of three feet, in such preservation as to enable you to ascertain from what trees they fell. Such preservation, during so many ages as must have elapsed in forming three feet of soil, shews how completely they had been shielded from fermentation. Second advantage of the tillage before us. It bares the meadow to sun and air, allows them to penetrate the surface, and consequently to begin a fermentation, which is forwarded also by the heat of fire. "Patience" cannot have adopted the

popular idea, that fire consumes in the sense of annihilation. It destroys nothing; and is only a solvent, reducing crude and undissolved substances back to their component principles: but neither does this effect take place any deeper than the sod struck off by the hoe. Thus, instead of burning up or annihilating the soil, it only dissolves substances, which were not only useless, but impeded vegetation, and fits them to be taken up again as food for other vegetables. Nor is the beneficial effect of fire upon low lands of modern estimation. One of the earliest, most beautiful, and instructive writers upon agriculture of ancient times, advises the farmer to burn his low lands "with crackling flames." "*Urere crepitantibus flammis.*"

But "Patience" declares, "that it has been the uniform experience," that burnt meadows have been spoiled. I have no doubt it has been a general impression, that they would be spoiled, and these preconceived notions have finally come to be thought the result of experience. Beside the instance which I mentioned, as giving rise to this tillage, there is another in my recollection, which had a very different issue. In a bucks-horn meadow in the lower extremity of Middlesex, fire was accidentally kindled and spread among its innumerable fibrous roots with great rapidity. "The neighbors" were raised in vain. Half an acre was burnt over, to the depth of two or three inches. The consequence was, the land, instead of being spoiled, was soon covered with luxuriant jointed blue grass, and has continued to produce valuable crops until this time, although it was burnt as much as twelve years ago; the bucks-horn is, however, gradually regaining its empire.

But we come to the most formidable objection of all; an objection which is to "raise the neighbors," and which levels the policy of this tillage with that of him who "burns his barn for the sake of the ashes." The pernicious tendency of ashes upon wet lands, is a maxim which has been handed down from father to son. But every thing which has the sanction of antiquity and tradition is not therefore true. Experiment is overwhelming many of these ancient structures with gigantic strength and speed. Ashes, used principally upon wet lands, in this vicinity, at least command more than double the price they did five years since. None realize their bad effects but those who do not use them. Indeed, the fertility which follows their application upon a barren flat, is apt to make the farmer forget the original meanness and poverty of the soil, and to be disappointed when his land returns to its primitive state. Ashes have been supposed to have an effect upon soils, analagous to ardent spirits upon man. There is, in our view, no analogy in

the case; and if there were, a meadow four feet deep has resources inexhaustible.

I have heard before of the calx of neutralized ashes, but having used them myself upon wet lands for five years, I have seen nothing of it. The meadows in question have been so tilled five years, and there is yet no sensible diminution, either in quantity or quality, of the crop. During the past autumn, when grasshoppers and drought had tinged the high lands with yellow, I went upon meadows which have been four years under this cultivation. According to "Patience," I should have found the surface a heath, baked with a hard calx, like a tract recently overwhelmed with an eruption of *Ætna*. So far from it, when cattle were famishing in the open fields for want of feed, these were covered with a second crop, a continued green, a charming contrast with the rest of the prospect.

A strong presumptive proof that this tillage does not ruin the soil, is, that it has prevailed in those countries where agriculture is best understood, as England, and particularly Ireland. It is there estimated, that peat ashes have but a small portion of alkaline salts, but are rather like burnt clay, absorbent, and are a highly valuable manure upon meadows.

None will dispute the utility of covering low lands with an inch or two of earth from the high lands; but besides that, it is an expensive and slow process, and upon miry meadows well nigh impracticable. The very meadow upon which the cultivation which we "recommend" will profitably apply, can receive no advantage from that method, unless covered so deep as to bury the haffocks and kill the "wild nature," which would require perhaps a foot of earth.

Upon the whole, I can see no reason why meadows of any considerable depth, so cultivated, should not be as durable in fertility as natural meadows.

*Lunenburg, March, 1807.*

T. FLINT.

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For the MEDICAL AND AGRICULTURAL REGISTER.

*Of White Fish as a Manure; the Method of using them; their fertilizing Effects, and the happy Consequences which have followed from the Use of them.*

MANY are the species of manure which have been made use of in this State, especially since the American revolution, to renovate and fertilize lands which have been reduced by repeated crops, the great importance of which is now known and acknowledged by all. One of the most approved of these

is the plaster of Paris, which may be obtained at a low rate, which renders it an important object to the man of small fortune, and is adapted to every variety of soil, for grain of all kinds, and grafs, but especially of clover, if applied to lands remote from the sea. But the same substance, when put on lands near or within a few miles of the sea, has been found to be almost totally destitute of any enriching or meliorating properties.\* Providence has, however, kindly furnished farmers residing near the sea with another species of manure, in all respects amply compensating for the failure of the plaster, which renders the earth more fruitful and productive than any substance whatsoever, heretofore made use of for the like purpose, in these parts.

The manure alluded to, is no other than a certain kind of small fish, termed by fishermen (and now generally known by the name of) White Fish. About the last of May, or during the latter part of the season for catching Shad, immense shoals of these fish are annually sent to visit our shores, and usually continue their visit several months. And what renders them more eminently important to the farmer, is the cheap rate at which they may be obtained; the price of 1,000 being one dollar, or at most one dollar and a quarter: 3,000 are usually carried at a time with a good ox team, and three such loads will richly manure an acre of land; indeed, 7,000 will pretty well serve for that quantity of land. So numerous and plentiful are they, that the fishermen frequently take 20,000 or 30,000 at a draught.

The method practised by those who first made use of these fish as manure, was to place them in the field in a heap, mixing them with earth while heaping, the proportion of earth being equal to five or six times the quantity of fish, and leaving them in that state till the season for sowing winter grain; when, being pretty much incorporated with the earth which had been mixed with them, the whole has been commonly spread on the piece designed to be improved, after being first ploughed. The grain was then sown and harrowed in as usual. However, farmers have lately spread the fish on the ground, when first brought from the sea, and have usually ploughed them in immediately, and left the ground in that state till seed time, when the ground being cross-ploughed, the grain was then sown and harrowed in as before. Land thus manured, has in many instances produced surprising crops of wheat: but wheat, however, is not so sure, nor will it generally, even with this mode of culture and this manure (though unquestionable the

\* This observation does not accord with the experience of Mr. BROWN. See his observations, page 198—203. E.

richest) yield so liberally as rye; the former producing commonly not more than twenty bushels to the acre, and indeed sometimes falling short of that quantity; while the latter, when manured as above, will generally yield thirty bushels, and often more, on a like quantity of land. Moreover, the same land will, the ensuing season, without being further manured, produce a good crop of rye; this will, however, be inferior to the former, but may notwithstanding be called a plentiful crop, and will sometimes amount to twenty-five, and sometimes will not exceed twenty bushels to the acre.

In addition to the preceding observations, it ought to be noticed, that this kind of fish is very peculiarly beneficial for manuring land intended to be sown with turnips, which have been found to be singularly sweet and palatable, and may be kept much later in the year even than such as have been raised on new land (which heretofore have been esteemed the best) being much less fungous than those which are raised by any other mode of culture, and producing in much greater abundance; an acre of land affording as much and often more than four hundred bushels.

Further, this kind of manure has a very happy effect in the production of potatoes, applied in the same manner as for raising grain, ploughing in the fish, &c. as before mentioned; but they ought not to be planted till the first part of the wane or old of the moon, in the month of June; their growth will then be vastly rapid and luxuriant. The potatoes will be very large in size, if properly dressed, and will also yield plentifully. Not only so, but the crop being taken off, the ground will be in the best condition for a crop of English grain, perhaps of wheat; but a large crop of rye may, with a great degree of certainty, be insured (it might perhaps be said) to the cultivator. Further, if an ample supply of fish cannot be procured, to manure the land as above, a single fish may be placed in each hole, at the same time taking care that the fish come not in contact with the potatoes. This last method of raising potatoes has proved very successful, as well as the former.

One remark must not be omitted in this place, which will perhaps more fully evince the peculiar excellency of the manure in question, which is, that for more than thirty years previous to the introduction and use of the fish in this part of the country, scarcely a single instance of a plentiful crop of wheat has been known, insects, blasting, or the winter, having universally proved fatal to its growth, though formerly more prolific than rye; whereas since lands have been dressed as above, they have been in some degree as it were restored to their original state of fertility, many plentiful crops of wheat having been produced,

every species of insect suppressed or destroyed, and blasting and the fatal effects of winter in a great degree prevented.

It ought to be further observed, that the lands in this vicinity, which have been manured and improved as is above described, for raising English grain, &c. have been generally of the most barren kind, viz. a hard, cold, close, or stiff soil, which had never, before the application of this manure, produced any vegetable whatsoever, except a certain worthless kind of grass, affording very little nourishment to any animal, and when taken hold of by a bullock, immediately coming up by the roots. This has ever been known here by the name of poverty grass; the land on which it grows never becoming swarded, as is common with every other species of grass. Such is the original quality of the land, and such has been its produce, when manured and improved as above described.

A SUBSCRIBER FROM CONNECTICUT.

*Saybrook, March 26, 1807.*

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*To prevent the Depredations of the Squash Bug and the Yellow Fly.*

DR. ADAMS,

THE squash bug and yellow fly have of late committed great ravages. The last summer they were embodied in armies of invincibles. Viewing their havock, at a moment which quickened invention from the necessity of immediate succour, I happened to hit upon a recruit which made the ravagers retreat. From a floor lately covered with hops, I collected some of the flour of the hop, poured upon it boiling water, and put in a little wheat flour, to give the liquid an adhesive quality; with this composition I wet the plants with a mop of rags, and it coated them with a defensive shield against their natural enemy. I afterwards made a strong decoction from the hop itself, and found it equally efficacious. This experiment is not sanctioned by repeated experience, but I am sufficiently satisfied of its efficacy to be confident in its recommendation. I make this communication in the expectation that it comports with the designs of your publication, and with my consent to any disposition of it which will promote them.

WILLIAM CUNNINGHAM, JUN.

*Fitchburg, March 10, 1807.*

## MISCELLANEOUS ARTICLES.

*Result of Meteorological and other Observations, for March, 1807; made at Deerfield, Warwick, Mason, Portsmouth, Smithfield, Hartford, and Boston.*

| Feb. 1807. | Mean degs.<br>at sun-rise. | Mean degs.<br>at 2 P. M. | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births. | Deaths. |
|------------|----------------------------|--------------------------|------------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|---------|
| Deerfield  | 20                         | 39                       | 29 $\frac{3}{4}$             | 22 d. 47°                      | 7 & 16 d. 4°                | N. & N. W.           |            |         | 3       |
| Warwick    | 20 $\frac{1}{2}$           | 37 $\frac{1}{2}$         | 28 $\frac{1}{2}$             | 17 47                          | 3 & 6 6                     | N. W.                |            | 2       | —       |
| Mason      | 22 $\frac{3}{4}$           | 35 $\frac{3}{4}$         | 29 $\frac{1}{2}$             | 25 44                          | 17 10                       | N. W.                |            | —       | —       |
| Portsmouth | 25 $\frac{1}{2}$           | 37                       | 31                           | 22 48                          | 3 16                        | N. W.                |            | —       | —       |
| Smithfield | 26 $\frac{1}{2}$           | 35 $\frac{1}{2}$         | 30 $\frac{3}{4}$             | 28 43                          | 16 7                        | N. W.                |            | —       | —       |
| Hartford   | 24                         | 39 $\frac{3}{4}$         | 21 $\frac{5}{8}$             | 28 48                          | 15 2                        | N. W.                |            | —       | —       |
| Boston     | 27                         | 38 $\frac{1}{2}$         | 32 $\frac{1}{2}$             | 17 46                          | 16 14                       | N. W.                |            | —       | —       |

## WEATHER.

|      |                                  |                  |    |                                      |              |
|------|----------------------------------|------------------|----|--------------------------------------|--------------|
| 1 —  | Sund. rainy                      | D last quarter.  | 18 | flying                               |              |
|      | morning; fair                    |                  | 19 | clouds;                              | N. W. winds. |
| 2* } | fair                             |                  | 20 | squalls                              |              |
| 3 }  |                                  |                  | 21 | of snow                              |              |
| 4 —  | scattering of snow; fair         |                  | 22 | Sund.                                |              |
| 5* — | fair; cloudy at Boston & Smithf. |                  | 23 | cold and windy                       | Full Moon.   |
| 6* } | fair and pleasant                |                  | 24 | wind shifted to S. E.; snow at night |              |
| 7 }  |                                  |                  | 25 | cloudy and windy                     |              |
| 8 }  | Sund. dull weather; cloudy,      |                  | 26 | fair, windy                          |              |
| 9 }  | some snow and New Moon.          |                  | 27 | fair; cloudy in some places          |              |
| 10 } | a little rain                    |                  | 28 | unsettled weather, a little snow     |              |
| 11 } | fair                             |                  | 29 | Sund. in some places                 |              |
| 12 — | cloudy; snow at night            |                  | 30 | pleasant, nearly D last quarter.     |              |
| 13 — | snowy morning; fair              |                  |    | calm; an extraordinary Halo          |              |
| 14 — | Sund.                            |                  |    | round the sun, noticed at            |              |
| 15 } | fair,                            |                  |    | Deerfield and Hartford               |              |
| 16 } | some                             | C first quarter. | 31 | a most violent snow storm            |              |

Warwick, rain —; snow 33 inches.

Smithfield, rain 1,6 inches; snow 15,4 inches.

*Warwick, March 31, 1807.*

This month has been uncommonly cold for the season; the snow fallen has been equal in quantity to all that fell during the three winter months; its mean depth is rising of two feet. Hay extremely scarce. Nature assumes a fullen aspect, and disappointed expectation “faddens at the gloom.”

\* Days of continued frost, according to observations made at Boston; or, days on which the range of the thermometer, through the whole twenty-four hours, was below 32°, or the freezing point.

A very severe storm of snow from the east and north-east, attended with a piercing and unusual strong wind, commenced on the morning of the 31st—

—“In sable cincture, shadows vast,  
Deep ting'd and damp, and congregated clouds,  
And all the vap'ry turbulence of heaven,  
Involve the face of things.”

The storm continued through the day with unabated severity, during which time several houses in this vicinity were unroofed, and scarcely a barn or shed escaped some material damage. The snow fell about one foot deep in the woods; in the cleared land it was much drifted, and rendered the roads impassable for several days.

Healthy for the season. Colds, which had become so general the last month, have in a great measure abated.

W. C.

—*Smithfield, March 31, 1807.*

The month has been cold and disagreeable. Travelling has been extremely bad, as there has been more or less snow on the ground during the month. In a situation exposed to the north, the ground was found to be frozen to the depth of more than thirty inches, on the 20th instant; since which it has thawed but very little. Vegetation is perfectly dormant. Spring birds revisited us about the 20th; but the cold prevents their wonted cheerful connubial notes. We have had no severe storms of long duration, but several short ones. A general complaint of colds and cough prevails; otherwise the state of health is favorable.

A SMITHFIELD SUBSCRIBER.

—*Hartford.*—Influenza prevalent; in some instances very severe.

—*Deerfield, March 31, 1807.*

*Remarks.*—The month in general has been unusually cold, and the snow has fallen pretty copiously: I believe the quantity nearly equal to the whole we had the preceding winter. The 31st we had a violent snow storm from the north-east quarter; the wind was very high; on the hills the snow drifted and blocked up the roads so as to render travelling difficult. The ground in the vallies is now covered two feet deep with snow, and on the hills much deeper. The month has closed with the dreary aspect of January, and many people are reduced to the last lock of hay.

Monday, the 30th of March, the day preceding the above mentioned storm, in the afternoon, a most singular *corona* or *halo*,\* attended with *parhelia* or *mock-suns*,† appeared in the west.

\* Circle round the sun.

† Vulgarly called sun-dogs.



Two concentric circles circumscribed the sun; the horizontal diameter of the interior bow subtended an angle of 45 degrees. About 90 degrees of the highest part of this bow was very brilliant, and exhibited the prismatic colors, with the red rays next to the sun, or in a reverse order to those of the interior rainbow. At the two extremities of the horizontal diameter of the interior bow were two parhelia, about the size of the sun, also shewing the prismatic colors; from these extended north and south, or in the prolongation of the horizontal diameter, two conical tails of a light color, each of about 30 degrees. The exterior bow was much fainter than the interior, and without a critical observation could not be perceived: the lower part of this bow was hid by the mountain. *Arcs* of two other concentric bows, having the zenith for their centre, and parallel to the horizon, were seen at the same time. The interior arc was about the size and color of the interior sun-bow; the convex side was in contact with the exterior sun-bow; and the convex side of the exterior zenith-bow was in contact with the interior sun-bow. The zenith arcs continued stationary and the other bows accompanied the sun, and consequently separated from their contacts as the sun descended. South-east of the zenith another faint parhelion was seen. The heaven during these appearances was clear, except some very thin clouds hardly perceivable, which were scattered in various directions and appeared high. The wind was north by east. Thermometer, at sun an hour high  $34^{\circ}$ , at two o'clock  $38^{\circ}$ .

A phenomenon nearly similar to this was observed by *Scheiner* at Rome, in the seventeenth century, and is described in *Dobson's* edition of the *Encyclopædia*, Vol. XIII. page 744, article *Parhelia*.

Though there are some circumstances attending these phenomena which differ from the rainbow, such as their angular size, the order of their colors, their position, &c. yet it is believed they may be explained upon the common laws of refraction.

It is generally supposed that such appearances indicate sudden changes in the weather, and that they are followed by storms. It is certain that the atmosphere, at the time these phenomena appear, is very different from its common state; and it is probable that an uncommon state of the air will produce some extraordinary change in the weather.

*State of health.*—Extraordinary colds, or a kind of *influenza*, have prevailed this month, in this and the adjacent towns.

✍ A number of communications have been received, which we are not able to notice particularly for want of room; they shall appear in our next number. It is peculiarly gratifying to us, to notice the increasing number of our correspondents.

THE  
*Medical and Agricultural Register.*

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VOL. I.]

MAY, 1807.

[No. 17.]

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M E D I C A L.

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Remedy for Worms, particularly the Tape Worm.

DR. ADAMS,

SHOULD the following recipe correspond with the plan of your useful Register, you will please to insert it.

It is with grief, and some indignation, that I find our apothecary shops filled with Patent Medicines, which, for the most part, are puffed off as infallible remedies in almost every disease. I can also recommend a remedy (without patent) for worms, especially for the Tape Worm, which, I believe, in every christian sense, preferable to any worm nostrum of the shops. It is cheap, safe, speedy, and efficacious: possibly, however, not absolutely infallible in all cases.

Long since, the difficulty of cure, in many worm cases, convinced me, that it was utterly futile to depend on the specific virtues of any medicine to free the human body from worms, and excited my attention to other methods. This medicine of mine rests, principally, on mechanical laws; its own structure of parts, in connexion with the peristaltic motion of the stomach and intestines, aided by the squirming of the worms. By attrition, it soon destroys a nest of worms; and, by its warm and bitter ingredients, disturbs these base tenants of the bowels, and prevents that sinking and debility, which too often attend or follow upon a course of Anthelmintics. It is also safe in the hands of every old matron; and may profitably be employed in many other cases than worms. It is an excellent stomachic in all cold phlegmatic habits; and very efficacious in most cases of Chlorosis and Cachexy.

VOL. I.

R

In the course of twelve or fourteen years medical practice, in my younger days, I frequently witnessed the efficacy of this medicine, in all the above mentioned cases: nor can I recollect that it ever failed me in any worm case. Was it necessary, certificates of its virtues might easily be procured from physicians and others, who have used it upon my recommendation; but actual experiment will best decide on its utility.

As I write for the public, I will give the recipe in plain English, viz.

Take the spiky tops of wormwood, the flowers of tanfy, and the root of wake-robbin,* of each one ounce; mix and pulverize. Take the bright scales of iron from a smith's forge, two ounces, and white chrystal glafs, one ounce; mix, and make them into a moderately fine powder, but not impalpable. Then mix the whole together accurately for use.† Dose for an adult, from 30 to 40 grains, or about a moderate tea-spoonful in molasses. For children, the dose must be proportioned to their age.

DIRECTIONS.

Take a dose morning and night, on an empty stomach, for three days; and on the fourth, purge off with jalap, or any convenient physic. Repeat the course as the case may require. One and two courses in the common worm cases will suffice. I never had occasion for more than three, even in the tape worm. In alterative cases, the physic should be omitted.

SENEX.

Hartland, Connecticut, March, 1807.

For the MEDICAL AND AGRICULTURAL REGISTER.

Submitted for the Consideration of Physicians.

WOULD it not be a good practice for practitioners of medicine, to keep a recipe book? By which I mean that they should note in it the several recipes they give, their dates, and the complaints for which they are prescribed. It has frequently happened to me, that after attending very closely to the history of a case, together with existing symptoms, that I have advised a remedy which has proved successful. Some time after, the disease has returned, and I have been requested by the patient to give him the medicine which relieved him before; but this, in the mean time, has entirely escaped my memory, though I

* Dragon root, as it is sometimes called.

† The leaves of wormwood and tanfy will answer if need be; and instead of wake-robbin, I have used the bark of the root of *sassafras*, to very good purpose.

still recollect the character of his disease; whereas, could I remember the article which had cured him formerly, I could proceed with more certainty, and thus the art of prescribing for the sick, as it would be less conjectural, would be both more useful and satisfactory.

This practice would tend equally to improve the history of diseases, and that of the *Materia Medica*. For myself, I have concluded to commence the practice immediately.

G.

Of Medicines prepared in Distilled Spirits.

Dr. RUSH, in his "*Observations on the duties of a Physician*,"* has the following remarks :

Give as few medicines as possible in tinctures made with distilled spirits. Perhaps there are few cases in which it is safe to exhibit medicines prepared in spirits, in any other form than in *drops*. Many people have been innocently seduced into a love of strong drink, from taking large or frequent doses of bitters, infused in spirits. Let not our profession be reproached in a single instance, with adding to the calamities that have been entailed upon mankind by this dreadful species of intemperance.

AGRICULTURAL.

*Practical Farmers should be induced to Communicate—
Would succeed, were they to set themselves about it—The Importance, to the Public, of their Communications.*

DR. ADAMS,

THE most solid wealth of the country is in the land—and by the better improvement of the land, it is difficult to say how much the general wealth may be augmented. To accomplish this most desirable end, to increase this sort of honest long-wearing riches, it is necessary to spread among the farmers a general spirit of observation, and a zeal for improvement, and also to direct this zeal.

In this view, the design of your Register is eminently commendable. By answering *both* the before mentioned purposes,

* See his "*Medical Inquiries*," Vol. I. page 406.

viz. of awaking and directing the spirit of improvement, it is calculated to be doubly useful, and far better deserves a general patronage than any party newspapers.

Ingenious fine spun theories are not half so much wanted by our husbandmen, as facts and practical observations. No men, in my opinion, are so likely to furnish these as the plain farmers, many of whom are better stored with good sense than good grammar. It is, therefore, an object of public utility, to invite such men to write for your Register. With slight corrections, which you would of course make, their performances would generally instruct and entertain. They are timid, and are hardly to be emboldened to state their observations, though nine times out of ten they would prove more judicious and useful than the speculations of scholars. It is needless to remark, that harsh criticism ought never to be feared by any of your correspondents. On such terms, a correspondent would be nearly as willing to get into the law as to get into print.

I observe, with some regret, that one of your correspondents for April, remarks, in a style that I hope is INIMITABLE by any writer in your Register, that the objections to his favourite theory, by another correspondent, were "hasty," and that those objections "display more of the *orator*, than the REFLECTING agriculturalist." He buckles on his war harness of controversy, and calls his adversary's performance "mere declamation," and that he can select "only three or four sentences to the point."

The pride of opinion is, indeed, very intolerant. Yet, after all this arrogant notice of his adversary, he employs almost four pages to answer his objections, which, for "mere declamation," is a great deal too much.

Your correspondents ought to feel at ease in writing for the Register. If they write "in haste," nevertheless they may have remarked and considered what they write, at leisure; and, as before observed, their communications will be worth so much the more for not being too fine spun. Besides, errors, if any escape a writer, are not offences, and should be exposed with candour and politeness.

One great impediment to the usefulness of an agricultural journal, and one that is harder to overcome than most persons would imagine, is the reluctance of the *practical* men to communicate their observations. If they will not freely furnish the materials, at least, for your publication, it will fall into the hands of not more than half a dozen book men, who, indeed, have ingenuity and zeal, but not according to knowledge. Improvement will be hastened much more by publishing what the best farmers *do*, than what the best scholars *think*.

I have long been both jealous and inquisitive on subjects of husbandry (by the way, I like husbandry better than agriculture, for I hate your Latin words) and I have often resorted to plain solid farmers for information with more success, than I ever met with among the book farmers. The men who farm by book are the worst farmers in the country. With a great deal they bring little to pass. I know many men who never read a book on husbandry, who thrive by accomplishing a great deal with a little. Those who follow husbandry for amusement, are the fittest persons to try experiments. But the safest guides to follow, are the most successful among those who depend for the comforts and necessities of themselves and families on their crops. By making public the best practice of the best farmers, you will do more good than by a thousand ingenious speculations of untried improvements.

MENTOR. .4

For the MEDICAL AND AGRICULTURAL REGISTER.

Observations and Remarks on the Management of Fruit Trees.

[This, and some of the following articles, ought to have appeared in our last Number. They were omitted for want of room.]

DR. ADAMS,

THE management of fruit-trees is a subject which has attracted my attention, even from my early childhood; but, "when I was a child, I understood as a child," and having no instructor, it was a considerable time before my own experience and observation taught me to "put away childish things."

A mind thus exercised, and possessing benevolence, cannot but expand with joy to see so many and so valuable observations as are to be found in the Agricultural Register; many of which so fully coincide with my own experience: such as those very valuable directions for setting trees; for covering the ground near the root from the drought of summer; for covering the wounds, &c. yet I think (with one of your correspondents) that if trees were rightly managed from the beginning, it would rarely be needful to inflict large wounds by trimmings, and much less needful even in correcting a badly formed tree-top than once I thought it was, or than I think most people suppose it is. I will remark upon both these cases.

First then, a fruit-tree should not resemble an aged oak, whose top is divided into equal or nearly equal branches, and

those again subdivided into others nearly equal; for such are apt to enclose bark in the crevices, and prevent the wood from closing as the branches increase; they form cavities, retaining stagnated water, which generates insects in summer, and by freezing, forces the branches apart in winter, and being heavy laden the next season, they will most certainly rend asunder, and one or both the branches fall to the ground.

To avoid this, the limbs should be in complete subordination to the body; the body having *its* limbs, and those limbs *their* limbs; there should be no rivalry or usurpation tolerated among them; the whole should form an obtuse cone, whose base may far exceed the perpendicular, somewhat resembling in form a lonely young white pine, though not like the pine with respect to rings of limbs coming out around the body.

This is a circumstance of more importance than I could easily have believed, without my own repeated experiments and observations. One such ring of limbs will infallibly draw away the sap from the standard, and cause the *upper part* to *dwindle* while *they* will *increase*, become rivals, and contend, like the successors of Alexander, for the whole dominion.

Limbs should leave the body gradually, one above another; one on one side and the next on another, and no limb be left on another limb, near the body. In general prune the limbs rather than the body. Thus the limbs of almost any tree may be made numerous and slender, easily bending with their fruit, and readily gaining their former situation, when left again to themselves. It is highly delightful, and very curious, to observe how such limbs (well cleared of thorns) will spread themselves apart to receive the meliorating influence of the sun, and healthful gales of wind, at a season when sun and air are most useful, when finishing off their annual task and giving their fruit its final flavor, to see them bending so as to rest their weary heads on the very ground; and again being relieved, rising in graceful majesty to form a phalanx to defend themselves and their common parent against the harsh blast of piercing winter, and the too scorching suns of June and July; and also forming a well constructed conductor to collect the gentle summer showers, to mollify the bark by trickling down the stock, and to moisten the ground at the root.

All this may easily be done with very little cost. By keeping the limbs straight they will never chafe each other, and by taking care in season, there will rarely if ever be any need of taking off a large limb.

But secondly, with such as have been heretofore neglected or injudiciously managed, more severity must sometimes be used, but still far less than I once imagined. I once thought

equal branches were ornamental ; but on discovering my mistake, I began to think of reforming my plan, although at first the task appeared like the *Ethiopian's attempting to change his skin*. For in many instances, if I took off one half of the tree top, still the remainder would be equally divided, and so on and so on. But I find that where branches do not form sharp angles so as to endanger the enclosing of the bark, the growth of one of them may be easily promoted so as soon to become the main standard, while the growth of the other may be so checked as soon to appear as only an ordinary limb from the tree. This may be done by taking all the limbs from one branch which proceed towards the limbs on the other, that those on the latter may have their full swing, their due degree of light, heat and air ; thus requiring more sap, they will increase the growth of the branch from which they shoot, while the former branch, having less labour to perform, will grow more feeble for want of exercise. The inequality may be much sooner produced than many would imagine. I confess I have many times been surprised to see the effect.

It is many times best to take off the top of one of the branches just above where a considerable limb shoots outwards ; and a little below some one from the other branch which will soon overshadow and fill up the vacancy.

Cases needing severity, are such as where branches form sharp angles, and either do or will soon enclose the bark in their crevices. One of such branches must be carefully taken off and the wound safely covered.

Where large limbs shoot out of other limbs near the body, which may be soon overtaken by the swell of the tree ; these also must suffer amputation. And when sprouts arise from lower limbs making their way up through the tree top ; such sprouts should be taken off, though they may be much larger than those limbs which they threaten to chafe above.

E. B.

Groton, N. H. March 17th, 1807.

Method of raising Cabbage Plants.

DR. ADAMS,

I HEREBY forward you the best mode of raising Cabbage Plants, which has ever come within my knowledge.

As cabbages are among the best of our culinary vegetables, it is of importance that we pursue a sure and easy mode of cultivation.

Without glasses, sow the seed as soon as frosts cease to be seen in the climate in which you live. Choose the seed from the different kinds of the best European growth. Before sowing, choose a favourite spot in your garden. For six hundred plants, dig a square trench, 4 feet each way, to the depth of twelve inches. Take from the horse stable manure enough to fill the trench or square, six inches deep; then shovel in three inches of rich good earth, loam or marl; then add, to fill the square, two inches of bleached ashes, and rich loam, in equal quantities. Let them be reduced fine with an iron teeth rake, then sow the seed, and with a rake, mix the earth and ashes so as to cover the seed. Should the weather be dry, with a water-pot sprinkle a little clear water, so as to moisten the ground to the depth of two inches. Remember always to use ashes that have been bleached, and manure from the horse stable.

Should these plants stand in this square until November, none of the common enemies of this plant would ever be seen to eat them. Boards may be placed around the square, about seven inches high, to prevent any thing interfering with the growth of the plants.

WM. MORSE.

Northborough, April, 1807.

On the Preparation of a Wheat Fallow by a Crop of Potatoes.

By RICHARD S. SMITH, Esq. of Moore's-town, communicated to the Burlington County Agricultural Society.

HAVING frequently heard of great crops of wheat being produced after potatoes,* I was induced to try the experiment upon a lot of two acres and a half, which I had actually measured for that purpose. The soil is hard and in some measure

* See in page 107 of the Register, a similar practice recommended by the Rev. Mr. AUSTIN, of Worcester. In a letter to the Editor, dated Jan. 21, 1807, that gentleman remarks that this wheat "yielded a plump grain, and produced at the rate of twenty-three bushels on the acre."

stony, and had not been manured for a number of years, for which reason I did not promise myself much success. However, early in the spring, 1790, I had as much dung from the barn yard hauled on it, as I thought could be well ploughed in; and on the 23d and 24th of April following, I planted it in the common way, with apricot potatoes, in rows about three feet and a half apart, without dunging the rows, and tended them with a harrow, till they began pretty generally to blossom; I then had them ploughed, and without doing any thing more to them until we gathered them, (which was done on the 6th day of September following, by running the plough on each side of the rows, and then taking them out with a common hoe) the product was 266 bushels, or nearly 106 bushels and one third per acre. The vines I had carefully hauled into my barn yard, and without any other preparation, on the first of October, I sowed the ground with yellow bearded wheat, ploughed it in, and harrowed it after ploughing, that it might lie smooth for clover.

In March, 1791, I had twelve pounds of red clover seed per acre thrown over the ground. The wheat was cradled about the beginning of July, and kept entirely separate from any other until thrashed. It being remarkably clean and heavy, I designed it for seed, and when thrashed, the product was *fifty-two* bushels and an half, or *twenty-one* bushels per acre. The clover looks fine, notwithstanding the uncommon dry weather, and promises to yield abundance, if rain falls in season.

Although this may not equal some experiments that have been made on better ground, or where ground has been limed, or very highly manured, yet from the foregoing statement of facts, I conclude that farmers cannot make a much more profitable use of their fields than to prepare them by the potatoe fallow, for future crops, which may be either wheat, winter barley, or rye, as the soil may best suit, and afterwards red clover, which may be sown the March following, without any additional expense, except the first cost of the seed, as the ground is then thoroughly pulverized and prepared to receive it.

The expense and profits may be stated thus, without charging the ground for the manure, because the good order that it is left in, together with the wheat straw, which is considerable, and the value of the clover, when the wheat is taken off, will amply pay for the manure.

<i>Dr.</i>		<i>Potatoes, one acre.</i>	
To rent of one acre	- - - -	£ 1	0 0
9 bushels of seed potatoes at 1/6	- - - -	0	13 0
First ploughing	- - - -	0	8 0
Furrowing out the ground and planting the potatoes	- - - -	1	0 0
Twice harrowing and once ploughing while growing	- - - -	0	12 0
Gathering the potatoes	- - - -	0	15 0
		£ 4 8 6	
<i>Dr.</i>		<i>Wheat, one acre.</i>	
To three pecks seed wheat, at 10s per bushel	- - - -	£ 0	7 6
Sowing, ploughing in, and harrowing	- - - -	0	12 0
Cradling and hauling in	- - - -	0	12 0
Thrashing 21 bushels at 1/6	- - - -	0	10 6
		£ 2 3 0	
Total expense of potatoes and wheat		£ 6 11 6	
<i>Supra Cr.</i>			
By 21 bushels of wheat at 7/6	- - - -	£ 7	17 6
By 106 bushels of potatoes, at 1/6	- - - -	7	19 0
		£ 15 16 6	
Expenses deducted		6 11 6	
Net profit of potatoes and wheat per acre		£ 9 5 0	

R. S. SMITH,

Moore's-town, Burlington Co. 23d July, 1791.

MISCELLANEOUS ARTICLES.

Remarks upon the Weather of 1806—7, &c.

Communicated in a Letter to the Editor by his Correspondent at Deerfield, (Mass.)

DR. ADAMS,

THE following general remarks upon the winter of 1806—7, with a few observations on the temperature of different places is submitted to your disposal.

The winter of 1806—7, throughout the northern part of the United States has been very cold; some parts of it equal to the remarkable one of 1779—80. The months of November, December, and January, were dry, and the snow much below the usual quantity. At Deerfield, from November to March, inclusive, we had 62 inches of snow; a great proportion of this fell in March. In the mountainous part of the country, there

was a surprising difference : In the fore part of March, on the Green Mountain between Wilmington and Bennington, I found the snow nearly four feet. At Bennington, which is at the foot of the mountain on the west side, the snow, at the same time, was not sufficient for sleighing, and at Deerfield there was very little ; but the ground in most places was covered with ice.

The following are the days of continued frost, or the days on which the thermometer was below freezing point.

December	13
January	18
February	8
March	3

42

Several of these days were extremely cold. The 26th of January has been noticed in the Register. From the observations made in various parts of New-England, the following are selected.

Cambridge	13 ^{o*}	} <i>Below zero at sunrise.</i>
Hallowell, (Maine)	33 [†]	
Portsmouth	9	
Boston	4	
Smithfield, (R. I.)	12	
Hartford	6	
Warwick, (Mafs.)	15	
Deerfield, (Do.)	10	

By these observations it appears that the cold differed considerably in different places. Some allowance, undoubtedly ought to be made for the difference of the thermometers and the manner in which they were exposed ; but these allowances will not be sufficient to reduce them to a coincidence. Hence it is evident that places, situated at no great distance from each other, differ essentially in their temperature.

The latter part of February, I had an opportunity to measure the depth of the frost, where some people were taking up an aqueduct. This I found to be three feet in level land. At this place there was but a little snow, but the ground was covered with ice. We are informed that the frost does not penetrate the ground to a greater depth at Petersburg in Russia.‡

The ice brought down our river, by the freshets in February, was of an unusual thickness. I measured a cake which was

* Centinel. † Chronicle.

‡ Tooke's Life of Catherine, Vol. I. page 8.

2 feet nine inches thick ; this was very solid and regular, the two surfaces perfectly parallel ; but in general the ice did not exceed two feet. Our river heads in Vermont, in the vicinity of the Green Mountains, where the weather in winter is generally intensely cold, from whence it is probable some of this ice was brought.

The lowest descent of the mercury this winter, at Deerfield, was in the evening of the 26th of January and the morning of the 9th of February, when it was 14° below the freezing point. Although we seldom have colder winters than the last, we sometimes observe the mercury lower. January 16th, 1805, at sunrise, it was 18° below. January 18th, 1806, it was 23° below, in the shade, some time after sunrise. Mr. Fowler's observations at Windfor, Vermont, make this morning one degree colder,* and this is the lowest descent of the mercury at that place noted in his observations for 1806. At Albany, February 9th, 1807, the mercury was 20° below. Seventeen years ago, it was 4° lower at that place. Greater degrees of cold have been observed in America at places whose latitudes do not much exceed ours. At Rutland, Vermont, lat. $43^{\circ} 30'$, Dr. Williams observed the mercury 27° below, on the 19th December, 1790. At Fredericton, on St. John's river, province of New Brunswick, about lat. 46° , I am informed that mercury has been known to freeze, as it has at Quebec, according to the traveller Laincourt. This is the greatest cold of which I have seen any account, in this part of America. If the observation made at Hallowell, viz. 33° below, as mentioned above, be correct, the mercury was but 7 degrees above the point of congelation, which is fixed at 40° below zero. This is said to be the ultimate degree of cold which the mercurial thermometer will measure. The mercury will descend lower than this ; and indeed it has been observed at 120° below zero ;† but after it passes 40° , it descends by starts, 100 degrees at a time.

On comparing the above statement with observations made at Petersburg in Russia, it will be seen that the weather, in the northern part of New England and parts adjacent, is sometimes nearly as cold as at that city, which is in lat. $59^{\circ} 56'$. The greatest degree of cold since the building of Petersburg, was by Reaumur $32\frac{1}{2}$ below, equal to about 42° below Fahrenheit, this was the 6th of January, 1768, and again January, 1799, (Tooke's Life of Catherine, vol. i. p. 10.) But the weather at Peterf-

* See Register, No. 14.

† See an "account of some observations and experiments made in Siberia, in 1735, by Dr. Gmelin," which is inserted in the works of Dr. Fothergill, p. 157.

burgh, during most of the winter, is much colder than in New England. The mean of the greatest cold of January, as deduced from observations made at the Imperial Academy of Sciences at Petersburg, is 22 below 0, Reaumer, equal to 18 $\frac{1}{4}$ below 0, Fahrenheit. The mean of the month of January last, at Deerfield, is 21 $\frac{1}{2}$ above.

At London, lat. 51° 32', the lowest range of the thermometer in January, was as follows :

1802	17°	} above freezing, according to the observation published in the European Magazine for these years.
1804	30	
1805	28	

With respect to the temperature of a place, it is now agreed that it is not wholly regulated by its latitude, but by other circumstances, such as its height above the level of the ocean ; its vicinity to large tracts of uncultivated lands, marshes, lakes, or seas ; the position and height of its mountains ; the direction of its winds ; and the quantity of evaporation from its surface ; and as these circumstances may be very different in different places, it follows that their several temperatures should also vary, and this is frequently very striking within the compass of a few miles. At Bennington, in the latter part of winter, when the weather is so warm as to melt the snow and uncover the ground, and spring is ushering in, the mountain is generally fast bound in frost ; the air is keen, and the traveller who departs from Bennington to the east, comfortably clothed, finds it necessary to put on additional cloathing to avoid the frost. This weather frequently continues on the mountain till vegetation is considerably advanced at Bennington. At this place peach trees are sometimes in full blossom, when the mountain is covered with snow, several feet, and every thing on it congealed, as in the midst of winter ; and this difference of temperature exists in the small distance of six miles.

That the winters of New England are more mild than when the country was first settled, is a fact which I believe is well established ; and this is undoubtedly owing to opening and cultivating the lands, by which means the air of the ocean and that of warmer regions penetrates further inland and to the north. But it is believed that we frequently have as cold days now as formerly ; and that the N W. winds will for a long time continue to produce very cold weather ; for they have to traverse a vast extent of uncultivated country, and which, in the winter, and indeed for the greatest part of the year, is covered with frost and snow. These winds are much the most prevalent of any in this part of the country. The winter past they have been very frequent.

Result of Meteorological and other Observations, for April, 1807; made at Deerfield, Warwick, Mafon, Smithfield, Hartford, and Boston.

<i>April, 1807.</i>	<i>Mean degs. at sun-rise.</i>	<i>Mean degs. at 2 P. M.</i>	<i>Mean degree of the month.</i>	<i>Greatest heat in the month.</i>	<i>Least heat in the month.</i>	<i>Prevailing winds.</i>	<i>Marriages.</i>	<i>Births.</i>	<i>Deaths.</i>
Deerfield	36½	55½	46	28 d. 70°	13 d. 14°	N. W.			1
Warwick	35½	53	44	28 72	1 & 2 21	N. W.		2	
Mafon	36½	51	44	19 73	1 21	N. W.			
Smithfield	39½	51½	45½	16 66	1 26	N. W.			
Hartford	38½	56	47½	27 73	2 28	N. W.			
Boston	40	56	48	20 78	2 24	N. W.			

WEATHER.

1st day, fair, high winds	14 } fair, thin scattering	
2—fair morn, P. M. & night a storm, snow in the interior, but rain on the coasts	15 } clouds	} <i>first quarter</i>
	16 } alternate shines	
	17 } and clouds,	
3—6 to 10 inches of snow last night in the country, much drifted, roads blocked up; fair	18 } foggy	
4 } clouds and sunshine; squalls of	19 } <i>Sund. morn.</i> Deerf. frogs peeped	
5 } <i>Sund.</i> snow in some places	20 } ings and light showers	
6 } fair, very pleasant; summer birds appeared; 7th little hazy <i>New</i> }	21 } in some places	
7 } fair, calm and pleasant	22—fair, very clear	<i>Full Moon</i>
8—fair morn, hazy, rain at night	23—fair, rain at night	
9—cloudy, fair P. M.	24—rain, foggy	
10—fair, a faint Halo morn. Aurora Borealis at night	25—rain, foggy, thunder in the night	
11 } <i>Sund.</i> cloudy, disagreeable	26— <i>Sund.</i> foggy, rain in the night	
12 } air, clouds thin	27—cloudy and misty	
	28—foggy morning, fair P. M.	
	29—foggy morning, rain at night	
	30—showers, heavy	} <i>last quarter</i>
	thunder and sharp lightning	

Depth of water fallen in rain, *Warwick*, 3.40 inches; snow 8 inches.

Smithfield, 2.85 inches.

Smithfield, depth of water fallen in rain the last year, 33 inches; snow 5½ inches.

Mafon, April, 1807.

Snow storm the last day of March was very severe. It began about 7 o'clock, A. M. snowed fast for a short time. About half after 8, the clouds appeared to be dispersing and the sun was to be seen. Not far from nine, it snowed again, and the storm increased rapidly, wind continuing all the time in the east, or nearly east, and very strong and heavy. The snow was moist and mixed with some hail, (or frozen rain) and drifted unusually hard. The storm continued till almost night with unabating violence, when the wind shifted to W. or nearly W. and the snow continued to fall most of the night. On the Thursday following, was a considerable fall of snow,

which began in the P. M. and continued great part of the night, wind W. and N. W. It was difficult to determine with exactness the depth of snow fallen, but judged to be not less than two or two and a half feet in both storms. All roads for a time entirely blocked up.

Warwick, April 30, 1807.

This month has been unpleasant, the season very backward, and the ground so wet that but little ploughing has been done. The ground began to be bare about the 10th; the 20th, the snow was mostly gone on cleared land, and frogs were heard; since that time we have had very cloudy dull wet weather. English grain appears well. The month has been healthy.

W. COBB.

Smithfield, April 30, 1807.

There has been no very severe storms this month, but much cloudy wet weather. Till about the middle of the month the weather was cold and disagreeable; the progress of vegetation small; snow-banks were frequent, and travelling very bad. Then,

“The penetrative sun,
His force deep-darting to the dark retreat
Of vegetation, set the steaming power
At large.”

“From the moist meadow to the withered hill,
Led by the breeze, the vivid verdure ran,
And swelled, and deepened to the cherished eye.”

Lelachs began to put forth leaves about the 20th, and elms and maples were in blossom about the same time. Fruit trees show but very little signs of leaves, except in very warm sheltered situations. Grass is considerably started and looks promising. State of health remains favourable: some cases of fever and canker rash have, however, occurred. It is reported, that a number of dogs have been affected by hydrophobia, and bitten a number of cattle in the south-westerly parts of this State, and the easterly parts of Connecticut.

A SMITHFIELD SUBSCRIBER.

Hartford, April 30, 1807.

Some apricot and early peach trees in bloom the last day of the month. The season uncommonly backward. A very high freshet in Connecticut river, the last of the month.

State of Health. An uncommon disease prevailed in Hartford and in a neighbouring town this month. Seven children and young persons died in Hartford, after a very short illness; some

of but a few hours. The disease appears to be similar to one which prevailed in Medfield last spring; as noticed in the Register for May last.

May 4. Another child has died this day of the disease above-mentioned, after an illness of nearly four days. Several are now convalescing. I hope our physicians will transmit to you a more particular account than I am able to give.

— *Deerfield, April 30, 1807.*

At the commencement of the month of April, the mean depth of the snow was two feet; the night of the second, six inches more fell. This was followed by high westerly winds, which heaped the snow, in the hilly parts, into enormous drifts, and the roads for some time were impassable. After this we had several small snows. I am informed that the snow, on and near the Green Mountains, in Vermont, was five feet deep in the middle of April. Northerly and westerly winds generally prevailed the fore part of the month; these, coming from places deeply covered with snow, were cold. Spring of course, kept back. Ice continued late in the rivers. Sleighs passed Connecticut river on the ice, the 10th of April, a few miles above this town, where it had not been broken up in February. This is reckoned very extraordinary. About the 17th of the month, the weather became warmer; the southerly winds began to prevail; some rain fell; the snow began to dissolve, and the rivers rose and produced high freshets. These continued the remaining part of the month, alternately falling and rising, and at this time our intervals are nearly covered with water, and our farmers have not been able to feed the ground. Snow still continues several feet deep on the mountains of Vermont.

Vegetation has made but little progress, except the elm, maple, willow, lilach, and some few plants on the south side of hills. Little verdure is to be seen, and the season is backward.

The month has been healthy.

✂ The Bill of Mortality in 1806, so far as we have been favored with the materials, shall be given in our next.

CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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THE
Medical and Agricultural Register.

VOL. I.]

JUNE, 1807.

[No. 18.]

M E D I C A L.

*Case of Lock-Jaw successfully treated with Brandy and
Opium.*

DR. ADAMS,

I AM a constant reader of your valuable Register, and have waited with anxiety to see some publication by those of the faculty, prescribing the most effectual remedy for the Lock-Jaw; but nothing of the kind having appeared, and having myself been accidentally present in a case of that kind, I shall proceed to give you the particulars of the application, together with the effect. And as I am a farmer, and not skilled in technical terms, I hope to be excused for the use of language with which I have been most familiar; and if you think my observations worthy, please to give them a place in some future number.

The patient was Jane Ingals, of Hiram, in the county of Oxford, in the District of Maine, being about twenty years old, who on the 2d of July, 1806, struck a cut nail 3-4ths of an inch into the upper side of her arm, about two inches below her elbow, at 10 o'clock in the morning. The arm instantly became numb, and that numbness in a short time extended to her shoulder and neck, at which she was much alarmed, being sensible of her approaching danger; and in one hour her jaws were completely set, her tongue and her lips were fixed, but the spasms did not appear to affect the rest of her body. In this situation she remained till about 2 in the afternoon, when a gentleman of the faculty arrived, who administered brandy, strongly impregnated with opium, which with difficulty was

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received through a vacuum where a double tooth had stood. In about half an hour she could move her lips; the application was continued without abatement; at 5 the spasms were so far removed from her tongue that she could poorly articulate; some relaxing ointment was applied to her jaws; and between the hours of six and seven, she was put into a warm bath, and there kept half an hour, and from thence removed into a warm bed. The brandy and opium were continued till nine, when she was let to sleep half an hour; every possible means having been taken previous to that time to keep her wakeful. At ten she took some water through her fore teeth, and the medicine was in some measure abated. At 12 she began to puke, but it was with difficulty that the matter could be discharged; and thus she continued puking till morning, and took but little more medicine. At 5 she could open her jaws at full extent; and it appeared that she had taken 17 grains of opium in one pint and an half of good brandy.

Bridgeton, April 24, 1807.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

THE following is presented for publication in the Register, if you think proper.

IATROS.

On the Danger of employing Quacks.

I was lately called in the evening about six miles, to visit a sick boy, aged six or seven years, of whom his parents related to me the following facts: He had been indisposed two or three days with a common cold, attended with the peculiar, hoarse sounding cough, characteristic of croup [quinsy.] In the preceding forenoon, they conceived that medical aid might be proper, and that an emetic would serve him well. There being no regular bred physician nigh, the father went to a Quack in the neighbourhood for an emetic, and was supplied with a portion of the emetic tartar. The emetic was exhibited by the little boy's mother, and continued to operate, at short intervals, through the day and most of the succeeding night. During these vomitive efforts worms were thrown up from the stomach, which induced the parents to believe he had more, and that a potion of Carolina-pink, succeeded by a purge, might be proper for the child. The father again called on Quack for these medicines, and was told by him, that he had two sorts of

pink-root; that one sort was much better than the other; that it was stronger, &c. &c. and that he might take which he pleased. Mr. ——— thinking it best to be sure to take that sort which would be likely to prove the most efficacious, and not suspecting that Quack *could* be so ignorant of *simples*, as not to know pink-root from any other root, took the sort which had been recommended in such high terms, and departed: previous to which however, he proposed to Quack, “if he should be coming that way in the course of the evening, to call in and see the lad.” This proposal, as may well be supposed, was readily assented to. Towards night Quack called, and was invited up stairs, and after examining the patient, and stalking about the chamber a few times, with all the dignity and importance of a cure-all, and vaunting of his wonderful performances in curing *incurable* diseases, pronounced the little boy to be labouring under a scarlet, putrid fever, of very dangerous tendency, often proving fatal, owing to its highly putrid nature; and that there was no disease more putrid, except the yellow fever; that it had been a good deal prevalent of late in his practice; and that he had been very successful in treating it, &c. &c. &c. But these “great swelling words of vanity” did not make the same impression on Mr. ——— and Mrs. ——— that they would have made on Quack’s *wife* employers; they were disposed to rely on their own judgment, respecting their child’s sickness, rather than Quack’s; and to pursue the exhibition of the (supposed) pink-root-tea. The tea was given several times; but the vomiting continuing, and the child becoming very feeble and exhausted, the parents sent for me.

I found him as follows: very languid, thirsty, extremities cold, indeed universally colder than in health; pulse very weak, but not much quickened; vomiting at intervals of an hour or two. I endeavoured to restore warmth, and thereby restrain the vomiting, by exciting the action of the superficial vessels, by external applications to the extremities and pit of the stomach, and by small doses of laudanum internally; advising the mother, as soon as the stomach should become composed, to persevere in the use of the pink-tea. I had generally witnessed that vomiting from the irritation of worms was checked by Carolina-pink tea; but in this case it appeared not to produce that happy effect. I was at a loss therefore to account for the continuance of the vomiting; and charged Mrs. ——— with having given too much of the emetic. Supposing that Quack had supplied the parents with a sufficient quantity of the pink, and perceiving that he had furnished them with a purge to be given after the pink-tea was all taken, I was about to take my leave, when it occurred to me to inquire whether they had

enough of the pink-root, and if they had not, to leave more. Mrs. ——— immediately brought forward, in a fragment of brown paper, a part of the (supposed) pink-root, which she had not steeped; and upon casting my eye on it, I at once suspected there was some fallacy in the business; for the article *prima facie*, did not look like Carolina-pink. I examined it critically, and at length found myself warranted to declare that it was not Carolina-pink, but genuine Virginia snake-root. The parents were confounded, mortified, vexed. I observed to them, that it might seem like prejudice in me to make such a declaration; but I believed I could convince them that I spake the truth. I then exposed to their examination some Carolina-pink, and some Virginian snake-root, both which I had with me, and told them and a visitant gentleman present, to examine and judge for themselves. They all very soon were fully sensible that the unfortunate little sufferer had been taking an infusion of Virginia snake-root, instead of Carolina-pink, through the ignorance and stupidity of an unprincipled pretender in medicine.

This discovery at once gave a clue by which to account for the continuance of the vomiting. Mrs. ——— then told me that her maid, as soon as she untied and opened the paper containing the article in order to prepare the tea, told her "it was nothing but snake-root," but that she silenced her for her presumption. I left some Carolina-pink, and a portion of rhubarb and calomel, with suitable directions, and departed. My directions were followed; and in a day or two the little boy parted with a great number of worms, and soon re-entered his school.

On the foregoing case, I would observe,

1st. Quacks always designate the ailments for which they are consulted, by some *great name*; so that if the patient recovers, it is owing to their wonderful skill; and if he perishes, it is not to be wondered at; the nature of the disorder was such, that it could not have been cured. The above case, which was a simple cold accompanied with worms, was, according to Quack's representation, a putrid, scarlet fever, &c. &c. If this had happened among people as ignorant as himself, he would have rendered himself famous for the cure of another formidable, dangerous disease; but which, in fact, most good old nurses would have cured with little or no medical aid.

2dly. It is surprising that people will consent to employ a person to administer medicine to them, whose opportunities for obtaining medical knowledge have not been half equal to those which would be required and expected of a person whom they would employ as a cobbler to mend their shoes.

Lastly. Quack went from his native home to an academy about 20 miles distant, to learn the rudiments of English litera-

ture, such as reading, writing, and arithmetic. Here he tarried just *six weeks*. Then he returned home, and undertook to teach a school occasionally; married and had children born to him. *But the sphere in which a school-master moves was too contracted for an ample display of the expanded faculties of his intuitive mind.* He had a call (supernatural) to commence preacher. He foundered in his first essay; for he had hardly entered on his harangue, when the current of inspiration ceased to flow; his tongue clave to the roof of his mouth; he sat down, and never more attempted to obey the heavenly mandate. But such a native genius, such super-eminent talents, could not lie dormant, concealed in a napkin, nor like a candle under a bushel; they must shine forth to illuminate and bless his groping fellow-men. He went and lived with a practitioner, "*off and on*," *ten months*; during which time he told me he learned to calculate eclipses! intending, it seems, to become a proficient in almanack-making as well as in medicine. A vacancy happening in a neighbouring village, precisely at the expiration of *ten months and four days*, his patron gave him a recommendatory line, and he commenced Quack! and now shines among a certain class of *folk*, with the most resplendent effulgence imaginable!!

AGRICULTURAL.

Agricultural Societies.

It has been and still continues to be an object with the Editor of this publication, to form such connexions with the district Agricultural Societies in different parts of the country, as to procure from them a regular series of interesting communications for this work. Supposing such societies more common than what they at present are, and supposing them put upon a plan, so far as circumstances might permit, like the following;—that at the annual meeting of each society, which should be in *September or October*, yearly, the various local circumstances and the state of husbandry in that particular county or district being taken into view, it should then be considered, what are those points in agriculture to which it might be most desirable to call up the attention and excite the inquiry of husbandmen, and on these subjects there should be raised certain questions—questions, which in every instance should come within the views and observation of husbandmen generally.

Such questions to be printed, and every member to be served with a copy of them in print.

It should then be the duty of each member of the society to make these several inquiries in the town in which he lives, and at the next annual meeting,

In writing, to give or send in,

1. An answer to the several questions proposed by the society of which he had been served with a printed copy, so far as by experience, observa-

tion and inquiry, he might have been enabled to ascertain the facts respecting them.

2. An account of the state of crops, new improvements, &c. &c. the current year.
3. Questions to the number of five or six for the use of the society, from which, thus collected, there should be a selection of questions for another year.

These reports of the several members of the society to come before the society's Trustees, who should make a report on each subject or question, according to what should appear from the information thus received from the several members of the society. These reports of the Trustees of the society to be transmitted for publication in the Medical and Agricultural Register.

In this way it is believed an *active* spirit of inquiry might be suddenly extended over a whole country. It is a system not tedious to be pursued; it is dividing the labor equally, and giving to every member his portion. It would be bringing the views of the society to a point, and giving a direction to all its members.

These observations have been introduced here, as explanatory of the following communication from the "*Attleborough Society for the promotion of Agriculture*," &c. and further, as exhibiting the outlines of a favourite system with the Editor, and which he is taking measures to see carried into effect with certain societies in particular parts of the country. Such a system in all its particular circumstances, is more especially calculated for those district societies, whose meetings are held annually or semi-annually. The Attleborough society holds its meetings monthly, excepting in the summer season. This society, as the Editor has been informed, at the present time, are in a course of experiments and observation with plaster of Paris or gypsum, three different specimens of which having been purchased in considerable quantities by the society, and distributed among its members, who are now making use of it on different soils and for different crops. The result of their observations at the end of the year, cannot but be interesting. The Editor hopes he may have it in his power to lay it before the public. This society is an example worthy of imitation in all considerable agricultural towns. When such, or district societies shall become more numerous, when they shall be put upon a system to render every member necessarily *active*, we may then expect to see agriculture advancing in our country with rapid strides. Especially could there be among those societies *one central point, one common vehicle of communication* to the public, issuing at regular periods, and circulating extensively over the country. Such it is wished that the *Medical and Agricultural Register* may be. Propositions of this nature are already before certain district agricultural societies in this State; and the Editor would feel himself greatly obliged by any assistance afforded him by particular gentlemen, in effecting such a connexion with these or other similar societies in this or any of the adjacent States.

Attleborough Society, for the Encouragement of Agriculture, Arts and Social Intercourse.

DR. ADAMS,

IN this place was instituted in the year 1805, a Society, styled *The Attleborough Society, for the Encouragement of Agriculture, Arts, and Social Intercourse*. It was small at first, but has increased to rising of sixty members. The general object of

the society, is to promote improvements in knowledge, in morals, in useful arts, and particularly in Agriculture, which we conceive to be of primary importance. We have a handsome library, with the means of increasing it. But as yet, we have done little by way of collecting information upon agricultural subjects. We have made few experiments, not any, indeed, which we think are worthy to be communicated to the public.

Your letter of *February 11th.* has been laid before the society, and its sentiments were universally approved. The Medical and Agricultural Register has been, from the beginning, read with pleasure and profit, by a number of our members; the objects it embraces are of incalculable moment, and we wish it may be as useful as its circulation is extensive. We should be happy in being able to contribute towards enriching so valuable a publication. Should we at a future period think proper to make communications to the public, we know of no vehicle so well adapted to the purpose as the Register.

Although we have no ambition to be known to the public as a society at present, especially as we have not made, (for reasons unnecessary to mention,) that improvement which we hoped to have done; yet if you are of opinion, (as your letter suggests) that agricultural societies would be beneficial, and that our example will have any tendency to stimulate others to institute them; the above, or any part of it, is at your disposal.

I am Sir, in behalf of the society, respectfully your obedient servant,

AMOS IDE, jun. *Secretary.*

Attleborough, April 20th, 1807.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

WE agree with "Mentor" in your last Register, in his estimate of the utility of your paper. We agree with him in deference to the opinions of "practical farmers;" we had, however, been accustomed to believe, that there was no art, "husbandry" not excepted, in which ignorance was any useful qualification; nor did we know before, that "book farmers," that is, farmers acquainted with reading, with the principles and results of the operations of their art, "were the worst farmers in the country." Those, that we imagined the best farmers, either with a "little, or a great deal," we have uniformly found acquainted with the principles of "husbandry." But, if it be so, the Register, being intended to make "book farmers," ought instantly to be dropped.

At your particular request, I described to you an experiment, ("Mentor" has to learn from books or elsewhere, that an ex-

periment is not a "theory" nor an "untried improvement," an "ingenious speculation,") an experiment tested by our best farmers for five years, with uniform and increasing success, and at the moment I am writing, promising as happy a result as ever. What was its reception? A writer, who pretends not to have tested it, who leaves us in the dark whence he obtained the materials, from which to make so laconic a decision, gravely informs us, that "burning meadows, is spoiling meadows," that it is the same thing "as burning a barn for the sake of the ashes." Indeed he goes farther; lest the conflagration should still spread, he levies "the neighbours," en masse, to go out, and quench it. This is the urbanity, "decency and candour," which is to stimulate the reluctant and encourage the timidity of "practical" farmers to make communications. And this too is the writer under various signatures, who complains of the "harshness of criticism."

Unqualified assertion without proof, is often received as the oracular response of profound research. To counteract its tendency, we toiled through the objections of "Mentor" at "three or four pages" length, because we had a deep conviction, that the prevalence of this tillage would be of public utility. We believe that a spirit of inquiry into the principles of agriculture, is in operation and in progress throughout our country, and that chiefly to this is owing the vast improvements that have been made in this most useful of all arts. "Mentor" would bring us back to the Gothic times, when the son trod in the circle of his father with undeviating regularity. I think your paper eminently calculated at once to excite this spirit of inquiry, and to diffuse the information that must result from it; and wish it better success, than to fall into the hands of "half a dozen" such writers as "Mentor" and myself.

T. FLINT.

Lunenburg, June 7, 1807.

Remarks.—We have been much gratified in seeing the subject of improving meadow-lands so fully discussed; but feel sorry that any thing unpleasant to the feelings of either of our correspondents should have occurred, in the course of this discussion, by the remarks, one upon the other.

Admitting that the strictures of "Patience" on the Rev. Mr. Flint's first communication were severe, yet we apprehend that his reflections were not meant to be *personal*. He, probably, would wish to be understood as speaking pointedly against a *practice* described, rather than against the writer, as he applauds gentlemen of the Clergy for trying and publishing ex-

periments, and in a particular manner, expressed his obligations to Mr. Flint for his communication; not, says he, "because I agree with him in opinion, but because I think his letter will excite attention to a very important branch of improvement of agriculture."

In speaking of "book farmers," "Mentor" has used the words indefinitely, although he probably had in view, such as are farmers in *theory* only, and know nothing of the practice; in other words, such as have contemplated agriculture in the *closet*, but have never seen it exemplified in the field. Hence we conclude, that in this particular, our correspondents are both correct in the sense in which they would be understood. Theory and practice, undoubtedly, ought to go hand in hand; it is these united, as we conceive, which form the character of a complete farmer.

On the main question, whether paring and burning meadows, generally speaking, is improving them? we shall not presume to offer an opinion. Judging from what English husbandmen have written upon this subject, we should conclude that lands in this way, have, in many instances, been ruined, while in other instances they have been much improved. In the "Farmer's Magazine," now publishing at Edinburg, we find both the affirmative and negative of the question advocated; although, where it is admitted, it is generally with certain restrictions and under certain limitations. Much undoubtedly depends on the nature of the soil and various other circumstances; more especially, on what it is that is burned. If it be but the moss, roots and hassocks, and such things as impede vegetation, we cannot conceive that any evil should come from it; but on the contrary, great advantage, as seems to have been the case in Lunenburg. On the contrary, if the subject submitted to burning be the *soil*, three or four inches of its surface being taken off, as has often been done in some parts of England, and as we apprehend "Patience" conceived of it, the practice then becomes doubtful, perhaps we may say, unwarrantable.

We have made these observations, not as presuming to give any decision upon the question, but because we think our correspondents farther apart in *appearance* than they are in reality. We wish to keep them so nigh together at least, as that they may often pass the same way, and be frequently seen in the same places, that is, in the pages of the Register. Their communications have been interesting, and have excited a good deal of attention among our readers. We wish, however, that our correspondents, in all instances, would avoid every thing which is *personal*, as we wish to make the Register a pleasant thing both to those who read it, and to those who write for it.

Of cultivating Carrots.

DR. ADAMS,

If the following merits a place in the Register, please to insert it. D. C.

The culture of carrots in this country has been but little in practice; but by those who have made the experiment, they are found to contain more nutriment than either potatoes or turnips, and may be cultivated in far greater abundance, upon the same space of ground. It is said, and by good authority, that *nine hundred and sixty bushels** have been raised upon one acre.

They make a good table sauce; but the greatest object in cultivating them is for the use of feeding and fattening swine, horses, and cattle. They are so easily cultivated, and so hardy, that they may be raised in fields to great advantage. They will grow well in a soil that is but moderately rich, if it be ploughed deep and made mellow. Owing to the form of the root of this plant, and their penetrating so deep into the earth, it is but rarely injured by droughts, that cause other vegetation to droop, and many kinds to die.

The ground should be ploughed in the fall preceding, and ploughed very deep: it must be well harrowed before sowing, first with a heavy harrow, and afterwards with a lighter one. After the seed is sown, the ground should be raked, otherwise the seed being so light, and of a forked form, if it be harrowed, it will be too much collected.

The last week in April is about the proper time for sowing, but later will answer. I have known good crops raised, that were sown as late as the middle of June. The earlier they are sown, the larger they will grow; but they are not so good for table use as those which are sown later. There will be no danger in thinning them early, as they are a plant which is seldom diminished by insects.

The European farmers make a practice of harrowing them after they have grown to some bigness. It is said that not one to fifty will be destroyed by the operation: it will loosen the soil, and greatly forward their growth. But it will be advisable to go among them after harrowing, and uncover those which are buried under heaps of mould.

It will be found, by those who will try the experiment of raising carrots, to be a great improvement in our present system of agriculture.

* This however is a very extraordinary produce, and not such as is often to be expected. E.

The following has been in type two months, but has been deferred till this late period in the season, for want of room.

Mode of destroying Caterpillars.

[From the American Museum.]

MR. CAREY,

IN reading your Museum for May, 1788, I met with a mode of destroying caterpillars which infest fruit trees. I received this information just after I had been making experiments of this nature at Brookline, five miles from this. I first tried brimstone, without charcoal dust, as recommended, which had not the desired effect. I then provided a long pole, and a sponge at the end of it. This I dipped in spirits of turpentine, and conducted it to the nest; and with a small touch of the sponge, thus charged, the spirits penetrated the nest, and affected the vermin to such a degree, that, in sundry instances, on cutting off large nests, I found by my watch that in fifteen minutes they were wholly destroyed. With one gallon of spirits of turpentine, I went through three hundred trees. I will not pretend to say that this kind of vermin will never infest the trees again; but this I can say, by observation, that the vermin were destroyed for that season, and that the trees received no injury by the spirits. The earlier these vermin are attended to, after they have formed their web, the better. To this they repair for safety; and it has been observed, that they are shielded completely from rain, whilst inclosed in their nests; and to this they always return before the setting sun. Experiments of this kind may be of great utility to the American nation, and render essential services to individuals. There is room to hope that experimental philosophers will have encouragement enough to continue their studies, since we neither want people nor industry to bring their designs into practice. I doubt not but improvement may be made from the hints here communicated by your humble servant,

JOHN LUCAS.

Boston, September 23, 1789.

Remarks.—The above may be depended upon as a cheap, a pleasant, an expeditious, and an effectual method of destroying this troublesome insect, the caterpillar, so destructive to vegetation. The Editor, the last summer, was taken through an orchard, by a gentleman in the Commonwealth of Massachusetts, from whence this insect had been utterly exterminated by the method here recommended. A very small quantity of the spirits is sufficient to the destruction of all the inhabitants of a single nest. The spirits may be purchased at about seven-
teen cents the pint:

MISCELLANEOUS ARTICLES.

Bill of Mortality for 1806, in 20 Towns.

AFTER so much pains and expense in making known our intentions, we feel extremely sorry and somewhat disappointed, that so many gentlemen of the Clergy, who we know are in the habit of recording the deaths in their respective towns, should have been so far inattentive to our wishes, as not to have favoured us with a copy of their records. We would, however, continue our solicitation, and hope for better success another year. The information we wish to receive, is the age, sex and disease of all those who died, the months in which they died, together with the marriages and births, if they can be ascertained, in each town. A want of uniformity in these respects has obliged us to make some deviations from our plan in the arrangement of the bill, here to be exhibited,

<i>Towns.</i>	<i>Census in 1800</i>	<i>Marriages</i>	<i>Births</i>	<i>Deaths.</i>
Newbury-Port	5946	74	273	94
Worcester	2411	—	—	41
Brookfield	3284	—	42	38
Hallowell, 1st. p.	1364	—	73	20
Do. 2d. parish		—	—	8
Walpole, N. H.	1743	15	—	18
Uxbridge	1404	—	—	13
Fitchburgh	1390	—	—	19
New-Milford	unknown	12	25	8
Needham	1072	—	—	16
Mansfield	1016	—	23	11
Norton	1481	—	50	15
Middleton	598	—	17	13
New-Castle	996	—	—	6
Mason, N. H.	1197	10	41	14
Warwick	1233	9	25	15
Bath	1225	—	—	34
Hopkinton	1372	11	54	14
Shrewsbury	1143	—	32	14
Spencer	1432	—	—	25
Princeton	1081	—	34	10

Of 261 whose ages have been given, died, under 2 years of age,

between 2 and 10 years	63
— 10 and 20	35
— 20 and 30	22
— 30 and 40	27
— 40 and 50	20
— 50 and 60	20
— 60 and 70	21
— 70 and 80	17
— 80 and 90	17
— 90 and 100	16
106	2
	1

The particular diseases of which these died, so far as we have been favoured with them (viz. 132) are as follows,

Abscels	1	Dropsy	10	Jaundice	1
Aphtha	4	—Brain	3	Mortification	3
Apoplexy	5	—Breast	2	Old Age	12
Asthma	1	Dysentery	2	Organ. defect	5
Dropsy	3	Dyspepsia	1	Palsy	8
Cancer	3	Erysipelas	2	Quinsey	7
Colic	2	—Catarrhal	3	Rickets	1
Consumption	53	Fever { Puerperal	5	Tetanus	1
Convulsions	17	—Typhus	56	Ulcer in the throat	1
Croup	3	Gravel	2	Worms	1
Cholera Morbus	2	Inflammation of the		Casualties	11
Cholera Infantum	1	Bowels	6	Lightning	1
Diabetes	1	—Lungs	2		
		Intoxication	1		
		Night-mare	1		

Extract from letters of Clergymen, accompanying their Bills of Mortality.

Shrewsbury.—The person who attained to 106 years of age, was a female, born in *Framingham*, February, 1701—married in 1738—left a widow 1792. She was never a mother.

Mason, N. H.—Where the seneca snake-root has been used in Quinsey or Croup, it has been successful in every instance, so far as has come to my knowledge.

New-Castle. —Deaths in 6 years, ending January 1, 1807	68
New-Milford. —Do. in 10 years	68
Hopkinton. —Do. in 15 years	279
Marriages Do.	297
Waltham. —Deaths in 54 years	508
of which number 115 lived to 70 years and upwards.	

Extract of a letter from Dr. ROWLAND GREEN, jun.

Mansfield.—The summer of 1805 was very dry and warm, springs remarkably low, and in many places the water afforded by the wells was so bad, as to be unfit for family use. Tenef-

mal diarrhoea, prevailed in August and first of September, after which, an epidemic fever, to the end of the year. Where the water in the wells was the poorest, the fever generally raged with greatest violence and malignity. Of 82 who had the fever 12 died, 8 of whom were males.

The summer of 1806 was very dry and cold. A few cases of epidemic fever appeared in August, September and November, but they were generally less violent than those of last year. The following case, perhaps, may be thought worthy of notice.

January 15, 1806, Mr. J. Paine was seized with symptoms of Inflammation of the Intestines. Extreme pain and tenderness in the abdomen, constipation, and vomiting up every thing taken. These symptoms lasted 2 days, and then he became easy, except some foreness and enlargement in his bowels. Constipation was removed, and he appeared to mend until the evening of the 22d, at which time the pain in his abdomen returned, and from this time he kept continually spitting up a bilious matter till the evening of the 23d, when he died. On opening the body, a live worm, of the common kind, about 10 inches in length, was found entangled in the omentum, lying between that viscus and the peritonæum; marks of inflammation appeared on the whole intestinal canal, numerous adhesions, considerable matter of the appearance of pus, and a large quantity of thin clay-coloured extravasated fluid was found in the abdomen. The stomach was empty, except it contained a little bilious matter. The place where the worm escaped from the intestinal canal was not found. The worm was found exactly on the part where the pain was most severe. Nothing further appeared worthy of remark. ROLAND GREEN, JUN.

January 3d, 1807.

Insects—an Extract.

WE are almost entirely in the dark, respecting the history of the insects injurious to our useful plants; and that man would be laudably and beneficially employed, who should collect what is knowable concerning the different moths, bugs, flies and worms, which infest our fields and gardens.

On Shearing Lambs.

AN experienced farmer advises to shear the largest lambs at the time of the new moon in July. Say what you will, continues he, about its impairing their fleeces in future: I can contradict it by experience. Their fleeces will yield as much, and their wool will be better. And as there are no cold storms in that season of the year, your lambs will be more comfortable

and thrive faster without their fleeces than with them. As hatching wool is dear, by attending to this method of frugality, many thousands of dollars might be saved to the country annually, of which each individual raiser of sheep would receive his share.

To Dairy Women.

To prevent your cheese having a rancid, nauseous flavour, put about one table spoonful of salt to each gallon of milk when taken from the cows in the evening, for the cheese to be made the next day; put the salt at the bottom of the vessel that is to receive the milk; it will increase the curd, and prevent the milk from growing sour or putrid the hottest nights in summer.

Result of Meteorological and other Observations, for May, 1807; made at Deerfield, Portsmouth and Smithfield.

May, 1807.	Mean degree at sun- rise.	Mean degree at 8 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	48½	63½	56	30 d. 80°	11 d. 32°	N. & N. W.			1.
Portsmouth	46½	59½	53½	28	72	N. E.			
Smithfield	46½	59½	52½	30	78	Variable.			

WEATHER.

- | | |
|--------------------------------------|---|
| 1 day, foggy, some clouds. | 17 Sund. cloudy, rain at night. |
| 2—cloudy, showers. | 18—cloudy (<i>appletrees blossomed.</i>) |
| 3 Sund. fair and cool, high freshet. | 19—some clouds, light showers. |
| 4 } fair, cool but pleasant. | 20—fair and pleasant. |
| 5 } | 21—rain at night. Full moon. |
| 6—rainy day. | 22—showers, heavy thunder. |
| 7—cloudy, some rain | 23—fair. |
| 8—cloudy, showers and sunshine. | 24—Sund. rain, thunder. |
| 9—rain and some snow. | 25 } cloudy and } <i>appletrees in full</i> |
| 10 Sund. clouds and sunshine. | 26 } some rain. } <i>blossom.</i> |
| 11 } | 27—rain in some places, fair. |
| 12 } fair and pleasant. | 28 } fair |
| 13 } | 29 } and |
| 14—appearances of rain. (First quar. | 30 } pleasant. |
| 15—rain last night,—showers. | 31 Sund. cloudy, little rain. |
| 16—fair, hazy, P. M. | |

Depth of water fallen in rain, Smithfield 5, 10 inches.

Smithfield, May 31, 1807.

We have had much cloudy, wet weather, and considerable thunder this month. The ground is full of water, and rivers high. Many people have not yet finished planting Indian corn, on account of the almost continued rain. The progress of vegetation is much behind the time of year: apple-trees began to put out leaves about the 8th: peach-trees and pear-trees were in bloom about the middle of the month; but apple-trees were not in full bloom till the 25th: the blossoms are not yet entirely fallen, and the fruit formed.

"Now the whole leafy forest stands array'd
In smiling nature's universal robe!
United light and shade! where the light dwells
With growing strength, and ever new delight."

Grass is well set, and looks promising, though rather short. State of health not so favourable as last month: cases of canker-rash more frequent and distressing, and rather an increase of fevers. On the 10th inst. a young woman belonging to this town was bitten by a dog that had every appearance of being in the last stage of madness. Immediate assistance was called, and she has been under a course of medicine. No symptoms of the dreadful malady have yet appeared. The dog was pursued and killed; but where he belonged is not known.

A SMITHFIELD SUBSCRIBER.

Deerfield, May 31, 1807.

The first appearance of leaves upon the apple-tree was on the 9th of the month. Cherries, plums and peaches blossomed the 15th; apple-trees began to blossom the 18th, and on the 26th were in full bloom. The season, though late, promises to be prolific. Wheat, however, has a sickly hue, and in some pieces which I have examined, the flies are numerous.

The month has been unusually cold and wet; the freshets continued late, and springs are higher than they have been for these two last years. In some of the hilly towns, snow was seen the latter part of the month. It is now very healthy.

Errata. Page 236 of the Register, lines 2d, 5th and 14th, for *was*, read *were*.

CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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THE
Medical and Agricultural Register.

VOL. I.]

JULY, 1807.

[No. 19.]

M E D I C A L.

For the MEDICAL AND AGRICULTURAL REGISTER.

Medical Extracts, No. IV.

Tobacco.—THIS is a stinking narcotic plant, which on its first use, induces giddiness, nausea and vomiting. It is a matter of great surprise, that a plant so injurious to the constitution, should be so generally used, either in chewing, smoking, or snuffing; either of these is at best, a nasty practice. Chewing or smoking is very prejudicial to health, it weakens the organs of digestion, and has a tendency to emaciation, particularly in young persons; it vitiates the breath, and turns the teeth yellow or black. Persons of middle age, or those of full growth, particularly the corpulent, and such as are subject to catarrhal complaints, may smoke occasionally, and indeed to such it may be useful, if used with moderation, especially in damp and hazy weather. Persons should never smoke immediately after eating, as the saliva is discharged. The saliva serves an important purpose in preparing the food for the stomach, assisting digestion, &c. and ought not to be thrown off. Smoking relieves some asthmatics, and to some persons it composes, producing a train of perceptions, and hushes the agitated passions into silence.

Chewing and smoking frequently excite a desire for ardent spirits, but the desire should never be gratified, as it is like adding poison to poison. Frequent small draughts of water, beer, or cyder are useful while smoking. It is a common thing to hear persons who make a free use of tobacco, complain, especially in the spring, of faintness, pain in the stomach, loss of ap-

petite, &c. inquire the cause; they answer, "Bilious very bilious." So the poor innocent bile, that salutary fluid, without which there can be no digestion and assimilation, has to bear the blame: but if those persons would quit the use of tobacco, these complaints would cease, and perhaps save the additional expense of travelling several miles, and paying three shillings for a box of Patent Bitters, not worth ten cents. Snuffing stimulates the membranes of the nostrils, vitiates the organs of smell, depraves the palate, and impedes respiration. Those who regard cleanliness, will not accustom themselves to this disagreeable and hurtful practice, from which every person ought to be dissuaded, unless good reasons can be offered in its favour. On the whole, the use of tobacco in any form, may be safely, and cannot be too suddenly relinquished, as soon as reason and resolution shall prevail over the absurd custom and gratification.

Exercise.—Exercise is as necessary for the preservation of health as food, and seldom fails to place those who observe it above want. No creature without exercise enjoys health, and this seems to be an universal law in nature. Inactivity produces many evils, it induces universal relaxation of the solids, and disposes the body to many diseases, as indigestion, glandular obstructions, &c. Exercise braces the system, promotes digestion and perspiration, and removes many diseases; it is the (almost) only known remedy for the consumption. Those of a slender constitution who wish to avoid that terrible disease, ought to take much exercise, either riding, walking, gardening, &c. as the case may require. The active and laborious seldom complain of nervous diseases; no, these are reserved for the sons of ease and affluence. Nothing contributes more to the preservation of health than early rising in the morning, and taking gentle exercise, which at this time especially cheers the spirits, creates an appetite, and is very important to the well-being of the individual in every respect. Exercise in the open air, light suppers, and a cheerful mind, promotes sound refreshing sleep. The studious and sedentary ought to take much exercise in the open air, and by so doing may prevent obstructions in the liver, indigestion, obstructed perspiration, &c. Man is not formed for perpetual thought, it is wearing and ruinous to the body, and hence the necessity of exercise. Great part of the pleasures of this life consists in alternate rest and motion, but they who neglect the latter never enjoy the former. Idleness occasions many diseases; it renders men useless, a burden to themselves and to society; it leads to

all manner of vices : in fact, man was never made to be idle, and an active life is the best guardian to virtue, and the greatest preservative of health, and, we may add, long life.

June, 1807.

G.

Means of preventing Summer and Autumnal Diseases, such as Fevers, Dysenteries, &c.

[Extracted from the Medical Inquiries of Dr. RUSH.]

Laxative Medicines.—HUNDREDS, perhaps thousands of the citizens of Philadelphia were indebted for their preservation from the yellow fever to the occasional use of a calomel pill, a few grains of rhubarb, or a table-spoonful of sweet or castor oil, during the prevalence of our late pestilential fevers. Even the air of Batavia has been deprived of its poisonous quality, by means of this class of medicines. A citizen of Philadelphia asked a captain of a New-England ship, whom he met at the island, how he preserved the whole crew of his ship in health, while half the sailors of all the other ships in the harbour were sick or dead. He informed him, that it was by giving each of them a gentle purge of sulphur every day.

A plentiful perspiration and moderate sweats, kept up by means of warm clothing and bed clothes.—The excretion which takes place by the skin, is a discharge of the first necessity. I have never known an instance of a person's being attacked by the yellow fever, in whom this discharge was constant and equally diffused over the whole body.

The Warm Bath.—I have known this grateful remedy used with success in our city. It serves the treble purpose of keeping the skin clean; and the pores open, and of defending what are called the vital organs from disease, by inviting its remote cause to the external surface of the body.

The Cold Bath, or cold water applied to the external surface of the body.—Dr. Baynard has left it upon record, in his treatise upon the cold bath, that those persons who lived in water-mills, also watermen, bargemen, and fishermen, who were employed upon the river, and in dabbling in cold water, were rarely affected by the plague in London, 1665, and that but two persons died with it on London bridge.

Washing the body every evening with salt water.—A whole ship's crew from Philadelphia was preserved by this means from the yellow fever, some years ago, in one of the West-India islands, while a large proportion of the crews of several ships that lay in the same harbour, perished by that disease.

Onions and garlic.—All those citizens who used these vegetables in their diet, escaped the yellow fever in 1793. The greater exemption of the natives of France from this disease whenever they are exposed to it, than of the inhabitants of other countries, has been ascribed in part to the liberal use of those condiments in their food. The Jews, it has been said, have often owed to them their preservation from the plagues which formerly prevailed in Europe.

Wine and ardent spirits.—These prevent a malignant fever only when they excite an action in the system above that which is ordinarily excited by the miasmata* of the fever; but this cannot be done without producing intoxication, which to be effectual must be perpetual; for the weakness and excitability which take place in the intervals of drunkenness, predispose to disease. Agreeably to this remark, I observed three persons who were constantly drunk, survive two of our most fatal epidemics, while all those persons who were alternately drunk and sober, rarely escaped an attack of the fever. In most of them it terminated in death.

Tobacco.—Many hundreds of the citizens of Philadelphia can witness, that no benefit was derived from this weed, in any of the ways in which it is commonly used, in the late epidemics of our city. Mr. Howard says it has no effect in preserving from the plague.

Means of preventing the Dysentery.

The *intestinal* state of our Summer and Autumnal disease requires several specific means to prevent it, different from those which have been advised to defend the blood-vessels from fever. Unripe and decayed fruit should be avoided; and that which is ripe and sound should not be eaten in an excessive quantity. Spices, and particularly Cayenne pepper, and the red pepper of our country, should be taken daily with food. Mr. Dewar, a British surgeon, tells us, the French soldiers,

* By *miasma* is understood the effluvia arising from putrifying animal and vegetable substances, supposed to be the cause of certain fevers, dysenteries, &c.

while in Egypt, carried pepper in boxes with them wherever they went, to eat with the fruits of the country, and thereby often escaped its diseases. The whole diet during the prevalence of intestinal diseases, when they are not highly inflammatory, should be of a cordial nature.

Another means of preventing the dysentery is, by avoiding costiveness, and by occasionally taking purging physic, even when the bowels are in their natural state. A militia captain, in the Pennsylvania service, preserved his whole company from a dysentery which prevailed in a part of the American army at Amboy, in the year 1776, by giving each of them a purge of sea-salt. He preserved his family and many of his neighbours, some years afterwards, from the same disease, by dividing among them a few pounds of purging salts. It was prevented a few years ago in the academy of Bordentown, in New-Jersey, by giving all the boys molasses in large quantities, in their diet and drinks. The molasses probably acted only by keeping the bowels in a laxative state.

As the dysentery is often excited by the dampness of the night air, great care should be taken to avoid it, and, when necessarily exposed to it, to defend the bowels by more warmth than other parts of the body. The Egyptians, Mr. Dewar says, tie a belt about their bowels for that purpose, and with the happiest effect.

The Benefit of Exercise, in Preference of Medicine in Chronic Diseases, illustrated by an Allegory. Extracted from a Publication on Temperance and Exercise, ascribed to Dr. RUSH.

IN the island of Ceylon, in the Indian ocean, a number of invalids were assembled together, who were afflicted with most of the chronic diseases to which the human body is subject. In the midst of them sat several venerable figures, who amused them with encomiums upon some medicines, which they assured them would afford infallible relief in all cases. One boasted of an elixir—another of a powder, brought from America—a third of a medicine invented and prepared in Germany; all of which, they said, were certain antidotes to the gout—a fourth, cried up a nostrum for the vapours—a fifth, drops for the gravel—a sixth, a balsam, prepared from honey, as a sovereign remedy for a consumption—a seventh,

a pill for cutaneous eruptions—while an eighth cried down the whole, and extolled a mineral water, which lay a few miles from the place where they were assembled. The credulous multitude partook eagerly of these medicines, but without any relief of their respective complaints. Several of those who made use of the antidotes to the gout, were hurried suddenly out of the world. Some said their medicines were adulterated; others that the doctors had mistaken their disorders; whilst most of them agreed, that they were much worse than ever. While they were all with one accord, giving vent in this manner to the transports of disappointment and vexation, a clap of thunder was heard over their heads. Upon looking up, a light was seen in the sky. In the midst of this, appeared the figure of something more than human; she was tall and comely; her skin was fair as the driven snow; a rosy hue tinged her cheeks; her hair hung loose over her shoulders; her flowing robes disclosed a shape, which would have cast a shade on the statue of Venus of Medicis. In her right hand she held a bow of evergreen; in her left hand she had a scroll of parchment. She descended slowly, and stood erect upon the earth; she fixed her eyes which sparkled with life, upon the deluded and afflicted company. There was a mixture of pity and indignation in her countenance. She stretched forth her right hand, and with a voice which was sweeter than melody itself, she addressed them in the following language: “Ye children of men, listen for a while to the voice of instruction; you seek health where it is not to be found. The boasted specifics you have been using, have no virtues. Even the persons who gave them, labour under many of the disorders they attempt to cure. My name is Hygeia; I preside over the health of mankind. Discard all your medicines, and seek relief from temperance and exercise alone. Every thing you see is active around you. All the brute animals in nature are active in their instinctive pursuits. Inanimate nature is active too; air, fire, and water are always in motion. Unless this were the case, they would soon be unfit for the purposes for which they were designed, in the economy of nature. Shun sloth; this unhinges all the springs of life. Fly from your diseases; they will not, they cannot pursue you.” Here she ended: she dropped the parchment upon the earth; a cloud received her, and she immediately ascended, and disappeared from their sight. A silence ensued, more expressive of approbation than the loudest peals of applause. One of them approached with reverence to the spot where she had stood, took up the scroll, and read the contents of it to his companions. It contained directions to each

of them, what they should do to restore their health. They all prepared themselves to obey the advice of the heavenly vision. The gouty man broke his vial of elixir, threw his powder into the fire, and walked four or five miles every day before breakfast. The man afflicted with the gravel, threw aside his drops, and began to work in his garden, or to play two or three hours every day at bowls. The hypochondriac and hysteric patients discharged their boxes of asafœtida, and took a journey on horse-back, to distant and opposite ends of the island. The melancholic threw aside his gloomy systems of philosophy, and sent for a dancing-master. The studious man shut up his folios, and sought amusement from the sports of children. The consumptive man threw his balsams out of the window, and took a voyage to a distant country. After some months they all returned to the place they were wont to assemble. Joy appeared in each of their countenances. One had renewed his youth; another had recovered the use of his limbs; a third who had been half bent for many years, now walked upright; a fourth began to sing some jovial song without being asked; a fifth could talk for hours together without being interrupted with a cough: in a word, they all now enjoyed a complete recovery of their health. They joined in offering sacrifices to Hygeia; temples were erected to her memory, and she continues to this day to be worshipped by all the inhabitants of that island.

AGRICULTURAL.

A Question proposed.

DR. ADAMS,

THE medium which the Register offers for the promulgation of experiments made in agriculture, added to your invitation to farmers to communicate the results of such experiments as bid fair to be real improvements in husbandry, ought to arouse every lover of the best interests of his country to lend his aid in furthering the objects of so laudable an undertaking. The number of valuable communications already given in the Register, fully show the utility of the undertaking, and cause every judicious reader to wish and hope that it may continue to be as well furnished for the future; and that no one will withhold the result of any experiment, which experience shall prove to be an improvement; but come forward and communicate

in his own way, for the advantage of his country. But husbandmen, generally speaking, make husbandry their business. They do not feel themselves qualified to write in such a manner as they would choose to have published, therefore they are timid; they expect criticism would certainly follow their performances, or that theories would be raised in opposition to their experiments. Hence that backwardness in husbandmen, in communicating the results of their practice and experiments, so much to be regretted.

Wherefore, in order to remove these obstacles, and all others if possible, it is proposed that experiments shall only be opposed by experiments; that no theory, however specious or plausible, shall be admitted into the Register, in opposition to the result of actual experiment; that remarks on experiments in husbandry, having the least appearance of harshness, shall not be admissible; but that theories may, in certain cases, be answered by theories; but that experiments, being the most useful, shall, in all cases have the preference. And further, to entice practical husbandmen to communicate their knowledge, certain Questions might be proposed, concerning the most successful method of cultivation to be pursued, in order to obtain good crops, such as wheat, rye, Indian corn, potatoes, grass, fruit, &c. Whenever the results of actual experiments in husbandry are given, correspondents should be particular in describing the kind of soil, the state of cultivation the land was in, and every other particular relative to the experiment, in order that others may know under what circumstances it may be likely to answer the same purpose for themselves; or whether the results differed, when the soil and cultivation were similar.

In pursuance of the foregoing plan, the following Question is proposed:

Query. In what manner can manure, at the rate of seven loads to an acre, yearly, be applied to land, in order to produce the best crops of Indian corn, for three years in succession, and leave the land in the best state for succeeding crops?

Should the whole, or any part of the foregoing appear worthy of a place in the Register, you are at liberty to insert it; or to reject it altogether.

PHILO.

For the MEDICAL AND AGRICULTURAL REGISTER.

Budding or Inoculation of Fruit-Trees.

THERE has appeared in the Register a number of communications on the management of fruit-trees, highly deserving

of notice, both for the pertinence of their remark, and for the plainness and simplicity of their language. I refer particularly to the communications in Nos. 3 and 4 of the Register, pages 37 and 59; and also in No. 17, page 261. Every man who has an orchard, will in these places find some very useful directions, to which were he to attend, he would soon find himself amply compensated for his trouble and care.

Nothing yet, as I recollect, has been said on the inoculation of fruit trees, and having had some experience that way, I have thought to offer a few observations upon that subject; in doing of which I shall discharge an obligation, incumbent as I think on every one, which is to contribute all in his power to the success of so useful a publication as the Register.

The time for inoculating, is from the end of June to the end of August, according to the forwardness of the season, and the particular sorts of trees to be propagated. It is the bud on the shoots of the *same year's growth*, which are used in inoculation; and what marks the time for performing the operation with the greatest exactness, is when the bud at the extremity of the shoot is formed and full, being a sign that the buds have finished their spring growth. Another circumstance marking the proper time for performing this operation, is when the bark will peel readily from the wood.

The method is as follows: "You must be provided with a sharp penknife, together with some smooth convenient instrument, for raising the bark of the stock to admit the bud, and some elm or bass bark, which should be soaked in water to increase its strength and make it more pliable. Then, having taken off some shoots of the *same year's growth* (or cuttings, as they are usually called) from the trees that you would propagate, choose a smooth part of the stock, then with your penknife make a horizontal cut across the rind of the stock, and from the middle of that cut, make a slit downwards about two inches in length, so that it may be in the form of a T; but you must be careful not to cut too deep, lest you wound the stock. Then to prepare your bud, first cut off the leaf from the bud, leaving the foot-stock remaining; then with your penknife making a cross-cut about half an inch below the eye, slit off the bud with part of the wood to it. This done, you must with your knife pull off that part of the wood which was taken with the bud, observing whether the eye of the bud be left with it or not (for all those buds which lose their eyes in stripping should be thrown away, being good for nothing;) then having gently raised the bark of the stock, where the

cross incision was made, clear of the wood, you should thrust the bud therein, observing to place it smooth between the rind and the wood of the stock, cutting off any part of the rind belonging to the bud which may be too long for the slit made in the stock; and having thus exactly fitted the bud to the stock, you may tie them closely round with bass-wood bark, beginning at the under part of the slit, and so proceed to the top, taking care that you do not bind round the eye of the bud, which should be left open.”*

The success of this operation depends almost wholly on the manner in which it is performed; if done in a clumsy way, it will never succeed; whereas, if the bark be not bruised, the bud be nicely inserted, set close, and be carefully bound down, it rarely fails. Few however, very likely, will succeed in their first attempt. They need not, however, be discouraged; but I would advise such, two or three weeks after having performed the operation, should the buds be discovered to be dead, to dissect away the bark, and they will discover some capital defect in their operation, which they will hence learn to avoid or remedy. It is necessary that the bud should be left out or open to the air; but if the bark of the stock be thick, it is in danger of being covered up, if the bud be set down close to the wood. If it be not put down close, it will die. I have therefore found it convenient to cut away a little notch in the bark above the horizontal cut, just large enough to receive the bud. If the bark of the stock be thin, the corners of the slit, just about the bud, are apt to rise up, or not to set close, by simple tying; in which event I have found two small wedges on each side of the bud, pushed down after the tying was performed, served to lighten the string, and make the bark fit close to the bud, and contributed much to the success of the operation.

Three or four weeks after the operation, such as appear shrivelled and black are dead; but those which remain fresh and plumb, you may be sure are joined; and at this time you should loosen the bandage, which if not done in time will pinch the stock and greatly injure if not destroy the bud.

“In the April following, let the stock or limb be cut off three or four inches above the bud; sloping it, that the wet may pass off, and not enter the stock. To this part of the stock left above the bud, it is very proper to fasten the shoot which proceeds from the bud, and which would be in danger of being blown out, if not prevented; but this must continue

* Forsyth.

no longer than one year ; after which it must be cut off close above the bud, that the stock may be covered thereby."

Cloudy or wet weather is to be preferred for this operation,
Massachusetts, July 17, 1807,

Cultivation of Barley, as practised by the best Farmers in England.

[From A. Alden's Treatise on the art of Bread-Making.]

BARLEY delights in a sandy loam. It generally succeeds wheat, the land being broken up as soon after Christmas as it will admit the plough. It is ploughed and harrowed in March. In April this operation is again repeated ; the husbandman afterwards taking care to render, with the harrow and roller, the entire surface as even and as level as possible. Sometimes the ground is only ploughed once, and the seed sown above ; but more frequently it is broken by three ploughings, notwithstanding they may not have more than a week to perform them in. This, at first sight, appears an injudicious practice, the ploughings being so quick upon each other, neither the root weeds have time to wither, nor the seed weeds to vegetate. But this being a frequent practice of some of the best farmers, we may be assured that two ploughings and harrowings are not wantonly thrown away. The Norfolk farmers are in general masters of the art of cultivating barley. They seem fully aware of the tenderness of this plant in its infant state, and of its rootings being unable to make the proper progress in a compact or a proper soil ; they therefore strive, by every means in their power, to render the soil as fine as ashes, and fit for the reception of the seed. The proper time for sowing the seed is from the middle of April to the middle of May ; but the time depends in some measure upon the season ; the true period is *just before the oak puts on that fallow appearance*, which it does at the time the buds are breaking, previous to the expansion of the leaves. Three bushels are usually allowed to an acre, and sown broadcast ; it is then ploughed under with a shallow furrow, an admirable practice in soils light enough to produce good barley, provided the seed is not buried too deep. If the season however is wet, and the soil cold and heavy, the seed should be cast upon the surface, and then harrowed and rolled, as is the practice in other districts.

Constituent Principles of Wheat.

IN one pound of wheat there is contained,

	oz.	dr.
Of bran,	3	0
Of starch,	10	0
Of a glutinous animal substance,	6	0
Of sugar	0	2
And loss in grinding and reducing the flour to starch	2	0
	<hr/> 16	<hr/> 0

The starch is that part of wheat from which its nourishing properties are principally derived ; it is the gluten in a particular manner which fits it for spontaneous fermentation ; and it is the sugar which is acted upon by the carbonic acid gas [fixed air] of the yeast, in producing fermentation. Hence the principles which enter into the composition of good bread are, gluten, starch, sugar, and fixed air, to which may be added water and heat.

Hints on the Management of Sheep.

It has been often remarked, that the American sheep yield much less wool than the sheep of Britain, France, and Spain. This is owing to the length of our winters, and the quantity of snow on the ground, preventing their picking up as much nourishment as the sheep in Europe. Hence, they drop their wool from mere weakness, during the winter and spring. To prevent this, a farmer of long experience has found *half a gill* of Indian corn given every day to each sheep to be extremely useful. It strengthens the sheep, by which means the quantity of wool is increased, as well as retained, till the time of shearing, to the great emolument of the farmer.

AGRICOLA.

Good Tillage.

THE following story is finely illustrative of the excellence of good tillage.

" Græcinus, in his book concerning vines, relates that he had often heard his father tell of a certain Paridius, who had two daughters, and a farm planted with vines. Of this farm he gave one third part as a marriage portion, to the man who wedded his elder daughter, and notwithstanding, received as much pro

duce as before, from the two-thirds which he reserved to himself. Afterwards, on the marriage of the younger daughter, he gave away the half of the remaining land, and found his income still in no respect diminished. What concludes he from this? But that the *third part* of the farm was at length better cultivated than *the whole* used to be before."

Agriculture.

"Too little attention is paid to farming in this country; and indeed it is strange it should be so, for agriculture is of the utmost importance to the people of America. It is high time it was reduced to a system. In some of the old countries they have gone so far as to serve apprenticeships to the business. It is a beautiful as well as an useful and necessary art, and ought to become part of the education of every man."

Extract from "The Farmer's Magazine," published in SCOTLAND.

Carrots.—There is reason to believe that carrots will answer on fen or mossy land, if a sufficient quantity of ashes be spread on the ground where they are sown; and it is probable that lime and other manures may raise that valuable crop on peaty soils.

There is, that withholdeth more than is meet, but it tendeth to Poverty. SOLOMON.

PARCUS is a husbandman. There is not a farmer in the town, who, with the same quantity of hay, keeps so numerous a stock, although he seldom sells or kills a beef or a mutton, he only just keeps his number good. His sheep shed half their wool before shearing-time; his cattle arrive not to their growth until they are five or six years old, and then they are dwarfs, and all because he is too saving of his hay. If he can make his creatures live through the winter, he thinks he does well. His object is to keep a large stock on a little hay.

His buildings fall into ruin, because he dreads the expense of repairing; and the very timbers are rotten, while he tries to make the old covering last as long as possible. Rather than be at the expense of convenient implements for his husbandry, he depends on borrowing; and the time lost for the want of them, and spent in borrowing and returning every year, amounts to

five times their value. Thus Parcus carries on his business, and with great industry, on a good farm, he just supports a moderate family; while several of his neighbours, on farms no better, and with less labour, are growing rich, only by discretion in saving, and judgment in spending.

MISCELLANEOUS ARTICLES.

For the MEDICAL AND AGRICULTURAL REGISTER.

From a Philadelphia Paper.

IT is with a great degree of pleasure I have learned that a gold medal has been sent by the QUEEN of ETRURIA, accompanied with a highly complimentary letter to Dr. Benjamin Rush, Professor of the Institutes of Medicine and clinical Practice in the University of Pennsylvania, after the perusal of his works. On the one side of this medal is a likeness of the Queen of Etruria, holding by the hand her infant son; and on the reverse these words,—“TO THE MOST DESERVING.”

This information cannot fail of being highly gratifying to the numerous pupils of this most worthy and ingenious Father in medicine; the simplicity, yet profundity of whose medical tenets have so greatly assisted in laying the basis of their professional knowledge, and of their skill, in its application to practice.

Fish-Bait.

BEANS, with proper management, make one of the finest of all baits for fish. The method of preparing them for this purpose is this: Take a new earthen pot glazed on the inside; boil some beans in it, suppose a quarter of a peck. They must be boiled in river water, and should be previously steeped in some warm water for six or seven hours. When they are about half boiled, put in three or four ounces of honey, and two or three grains of musk. Let them boil a little on, then take them off the fire, and use them in this manner: Seek out a clean place, where there are no weeds, that the fish may see and take the beans at the bottom of the water. Throw in some beans at five or six in the morning, and in the evening, for some days.—This will draw them together, and they may be taken in a cast net in great numbers.

Encyc.

Result of Meteorological and other Observations, for June, 1807; made at Deerfield, Warwick, Mason, Portsmouth, Smithfield, and Hartford.

June 1807.	Mean degree at sun-rise.	Mean degs. at 9 P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	56½	74½	65½	9 d. 92°	1 & 2 d. 48°	S.			2
Warwick	54	72½	60½	9 93	12 42	N. W.			
Mason	56	71	63½	9 90	1 & 2 44	W. & N. W.	1	2	1
Portsmouth	56½	71½	63	15, 29, 30 82	1 46	Variable.			
Smithfield	56	70	63	9 88	12 42	N. W.			
Hartford	56	74½	65½	9 93	3 45	Variable.			

WEATHER.

1st day, wet day	16—cloudy, rain	
2—cloudy, fair	17—fair	
3 } fair, showers	18—cloudy, some showers	
4 } in some	19 } fair, flying	Full Moon
5 } place,	20 } Sund. clouds and	
6—cloudy, rain	21 } showers,	New Moon
7—Sund. fair.	22 } in some	
8—fair, brisk wind	23 } places.	
9—fair, hazy	24 } cloudy, rain	
10—hazy, showers in some places	25 } in some places	
11—fair, brisk winds	26 } fair and	
12—frost in low places (first Quarter)	27 } pleasant	last Quarter
13—cloudy, some rain, cool	28—Sund. cloudy, some rain	
14—Sund. fair, cloudy	29 } clouds and sunshine	
15—fair	30 } some showers	

Depth of water fallen in rain, *Warwick*, 4 inches.
Smithfield, 2,56 inches.

Deerfield, June 30, 1807.

Except the 8th, 9th, and 10th days, which were very hot, the month has been cool, and the weather unsteady. Our farmers are now cutting their first crop of grafs; this is tolerably good, except where it was injured by the lateness of the freshets. Crops of rye look well, except where it was winter-killed. Wheat will be light.—Month healthy as usual: a case or two of fevers have occurred, and one has been fatal.

Warwick, June 30, 1807.

This month has been cold for the time of year: we have had, however, some very warm days. On the morning of the

10th, the mercury stood at 77°, which was 7° higher than on any morning the last year; the morning but one following, the mercury was at 42°, and we had frost in many places of low land: On the 20th, a heavy cloud from the N. W. passed over the east part of this town, emitting a copious shower of rain, accompanied with a large quantity of hail, which covered the ground, and did considerable damage to grain and gardens; but I believe it was not very extensive. Corn is some injured by worms, and has in general an indifferent appearance. Grass is considerably winter-killed, and what remains comes forward but slowly.

This month has been healthy.*

W. COBB.

Smithfield, June 30, 1807.

The weather has been cool for the season, except a few days, about the 9th. There have been no storms of much consequence this month: The most considerable was a cold one on the 24th and 25th. The season still keeps in advance of vegetation: Indian corn is small; but grass looks tolerably well. The small limbs of pear-trees began to die about the 20th in the same manner as mentioned last year. Rose-bugs appeared here about the 25th, but not in such numbers as they have for several years past. In many places however, they very much injure apples and other vegetables. State of health more favourable. The young woman mentioned to have been bitten by a mad dog remains free of the symptoms of madness.

A SMITHFIELD SUBSCRIBER.

Hartford, June 30, 1807.

The month uncommonly cold and wet.—The season backward.—Corn injured in Hartford and some other places by worms.—Many large fields destroyed.—Grass thin.

* May 31. Apple trees put forth their leaves about the 10th; English cherry trees in full blossom the 18th, and apple trees the 30th. Our dry land was fit for planting about the 20th; but much of our low and springy ground, by reason of the frequent rains, is yet unfit for seed.

CONDITIONS OF THE REGISTER.

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THE

Medical and Agricultural Register.

VOL. I.]

AUGUST, 1807.

[No. 20.]

M E D I C A L.

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*Of Sleeping and Waking ; their just Proportion with regard to Age, the Constitution of the Body, Mode of Life, and other Circumstances.*

[From Willich's Lectures.]

**SLEEP** and wakefulness are nearly in the same relation to each other as exercise and rest. Waking always presupposes a certain degree of activity ; all the *natural* functions, digestion, the preparation of the chyle and blood, assimilation, secretion, and excretion, are then more vigorously performed, and would soon exhaust their powers, if sleep did not restore to them the beneficial and indispensable supplies.

*Sleep* is therefore necessary to existence and health ; and it is an improper and fruitless attempt, to deprive ourselves, by an ill-directed activity, of the requisite portion of this refreshment ; for nature will maintain her rights, in spite of our efforts to subvert them : and both body and mind suffer, without attaining any real advantage from an extravagant watchfulness.

To continue in a waking state, beyond a proper time, consumes the vital spirits, disorganizes the nerves, and causes so many uneasy sensations, that a considerable while must elapse, before we can fall asleep, namely, until their greatest violence has abated. The fluids of the body become acrid, the fat is consumed, and there arises at length an inclination to vertigo, violent head-ach, anxiety, actions without connexion, without design, and without consistency. Those who indulge themselves in much sleep, are seldom liable to very strong passions. Persons, on the contrary, who sleep too little, frequently contract a violent and vindictive temper. Long continued wake-

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fulness is capable of changing the temper and disposition of mind of the most mild and gentle; of effecting a complete alteration of their features, and, at length, of occasioning the most singular whims, the strangest deviations in the power of imagination, and, in the end, absolute insanity.

Excess of sleep, however, is not less prejudicial. The whole body sinks gradually under a complete state of inactivity; the solid parts become relaxed, the blood circulates slowly, and remains particularly long in the head; perspiration is disordered, the fluids are increased, the body increases in fat and thick humours, and is rendered incapable of being the medium of mental exertion, the memory is enfeebled, and the unhappy sleeper falls into a thoughtless lethargic state, by which his sensibility is, in a great measure, destroyed.

Persons troubled with hypochondriasis and hysterics do themselves much injury by sleeping too long, especially in the morning, when the body is much weakened by its too long continuance in a heated and unwholesome atmosphere. To such individuals, it is also dangerous to remain for a length of time in a state of inactivity. Indeed, excess in sleeping is detrimental to the muscular powers of every person; to the phlegmatic, especially, whose fluids will thus soon be universally corrupted; and sanguine temperaments thereby acquire a superabundance of blood. The melancholy, whose blood circulates slowly, must suffer inconveniencies in their secretions and excretions by this indulgence; and we generally find, that long sleepers are afflicted with costiveness and obstructions.—Early rising, and timely going to bed, may alone render them more healthy and vigorous.

The proper duration of sleep, in youth and adults, is usually settled at six or seven hours; in children and the aged, from eight to nine hours. Yet the individual deviations in the constitution of the body, and its various wants, scarcely admit of any accurate rules. The more bodily weakness we feel, the more we may indulge in sleep, provided it be refreshing. If people in a state of health are perfectly cheerful in mind and body, when they first awake, this is the most certain criterion, that they have slept sufficiently.

We should, however, be on our guard, not to confound the natural wants of the body with a blameable custom. For most persons habitually sleep too much, or remain longer in bed than they ought. The principal cause of this destructive custom undoubtedly arises in infancy; when children are permitted to sleep in very soft and heating beds, and encouraged to lie longer than is proper, from a mistaken notion that they cannot sleep too much. From this injudicious treatment, they cannot attain

a solid texture of the body, and a foundation is laid for many subsequent diseases. The rickets, so very common in many families, in the present age, often originate in such indulgencies, since the general relaxation of the body, and the tendency to profuse perspiration, is thus promoted in an extraordinary degree. At the age of puberty, this effeminacy of the body, and the inclination to sleep, together with the pleasant sensation which a soft and warm bed affords in a waking state, are certainly the first and most frequent causes of a vice, that might be effectually prevented by early rising.

The custom of sleeping long, when continued to the state of manhood, becomes so habitual that it cannot be relinquished without great struggles, and a firm resolution. Those, then, who are not possessed of this firmness, instead of attaining a strong constitution, will acquire a phlegmatic, relaxed, and cold temperament, which will render them irresolute, and incapable of energetic efforts; and from which the mind, by degrees, becomes as indifferent towards every object, as the body is unfit for muscular exertion. Hence, to listen to the voice of nature, in this respect, will contribute more to our happiness, than to shorten our repose by many of the usual but violent means of excitement, when the body is in want of rest.

To children, at a very early period of life, no limits of sleep can be prescribed; but, after the sixth or seventh year of age, some regulations become necessary, to habituate them to a certain regularity. The just proportion of sleep can be ascertained only, by their more or less lively temperament, by their employments, exercise, and amusements through the day, and according to the more or less healthy state of their bodies. In pursuing this measure, however, we must not attempt to awaken children from their sleep, in a violent or terrifying manner, which is frequently done, and is extremely pernicious.

In great disquietude of mind, and after violent passions, sleep is the more necessary, as these agitate and exhaust the frame, more than the most fatiguing bodily labour. Hence, many persons never sleep so sound, as when they are afflicted with grief and sorrow. A fretful and peevish temper, as well as a fit of the hypochondriasis, cannot be more effectually relieved, than by a short sleep. Frequently, after a sleep, of a few minutes only, we awake refreshed, we can reflect on our difficulties with a calm mind, and again reconcile ourselves to the troubles of life. In such situations, though we should not be able to sleep, even a quiet posture of the body, with the eyes closed, is of some advantage.

There is scarcely any misfortune so great, that it cannot be relieved or alleviated by sleep; as, on the contrary, we should

inevitably sink under its pressure, if this beneficent balm did not support us. Yet, frequently too, uneasiness of mind, by its continual stimulus on the *cenforium*, prevents all sleep: hence the unquiet repose, and even whole sleepless nights, of those, whose heads are filled with cares or important schemes. As mental labours exhaust our strength more than those of the body, literary men, who employ themselves in long and profound reflections, require more sleep than others. Though some persons, whose body and mind are equally indolent, have a greater inclination to sleep, than the lively and laborious, yet it is not so beneficial to them, since they are destitute of the essential requisites to health, namely, activity and vigour.

The most healthy, and those who lead the most regular lives, frequently have an uneasy and very short sleep; they also require less rest at one time than another. He who digests easily, stands less in need of sleep than others. After taking aliment difficult of digestion, nature herself invites to the enjoyment of rest, and to sleep in proportion to the time which is required for the concoction and assimilation of food. Excessive evacuations of whatever kind, as well as intoxication by strong liquors, render additional sleep necessary. In winter and summer, we require somewhat more time for sleep, than in spring and autumn; because the vital spirits are less exhausted in the latter seasons, and the mass of the blood circulates more uniformly, than in the cold of winter or heat of summer, when it is either too much retarded or accelerated.

It is very improper to sit up too late in the long winter evenings, whether at the desk or the bottle, either of which is then more hurtful than in summer, because the want of sleep is greater. Those who wish to spend the winter in good health, and useful labour, should retire to bed at nine o'clock in the evening, and rise at four or five o'clock in the morning. A winter morning, indeed, is not very charming, but the evening is *naturally* still less so; and there is no doubt, that we can perform every kind of work, with more alacrity and success, in the early part of the day, than at night; and that our eyes would likewise be benefited by this regulation, after sleep has enabled them to undertake any task in the morning; but they are fatigued at night, from the exertions of a whole day.

Every stimulus may interrupt sleep, or at least render it uneasy, and often occasion dreams, the cause of which is generally owing to an irritation in the stomach, or in the intestinal canal. Dreams are, as it were, a middle state between sleeping and waking, and generally indicate some defect in the body, unless they give representations which originate in the occurrences of the preceding day.

An uneasy sleep, which is obvious from starting up, or speaking in it, and from a frequent change of the posture in bed, is at no time a good symptom; it is as frequently a forerunner, as it is the effect of disease, and may be owing to the following causes:—

1. Emotions of the mind, and violent passions, always disorder the vital spirits; at one time they increase, at another diminish, and sometimes altogether check their influence, the consequences of which extend to the whole circulation of the blood. Sorrows and cares produce a similar effect. Hence the nocturnal couch is a very improper place to prosecute moral researches, or to recollect what we have done, spoken, and thought through the day.—To read interesting letters, received late in the evening, usually too occasions an unquiet sleep.

2. A bad state of digestion, and especially hard or corrupted food, on account of the connexion of the brain with the stomach.

3. A repelled perspiration, if we have not covered ourselves conformably to the climate, season, and weather. In this case, a current of air is still more hurtful than intense cold.

4. An apartment or bed to which we are not accustomed may also occasion an uncomfortable sleep, as travellers frequently experience. It is therefore an essential part of a good and healthful education, to accustom children to sleep alternately upon different and harder or softer couches, in various parts of the house, more or less temperate, which consequently enables them to sleep comfortably in a simple but clean bed, in whatever place or situation they may find it.

Debilitated persons injure themselves much by sleeping during the day, against the order of nature, and keeping awake the greater part of the night. Day-light is best adapted to active employments, and the gloom and stillness of the night to repose. The evening air which we inhale soon after sun-set, and night air in general, which is vitiated in the country by the exhalations of plants, is very detrimental to the delicate. The forced watchfulness of those who apply themselves in the night to mental pursuits, is exceedingly prejudicial. A couple of hours sleep before midnight is, according to old experience, more refreshing than double the quantity after that period.

The question, whether to *sleep after dinner* be advisable, must be decided by a variety of concurrent circumstances; custom, bodily constitution, age, climate, and the like.

In a weak and slow state of digestion, after having taken hard or solid food, we may indulge ourselves in a short sleep, rather than after a meal consisting of such nourishment, as by its nature is easily concocted. But debilitated young people especially should not sleep too much, though their weakness incline them

to it; for the more they indulge in it, the greater will be the subsequent languor and relaxation.

Individuals of a vigorous and quick concoction, may undertake gentle, but not violent exercise, immediately after meals, if they have eaten food that is easily digestible, and which requires little assistance but that of the stomach and its fluids. And even such persons, if they have made use of provisions difficult to be concocted, ought to remain quiet after dinner, and may occasionally allow themselves half an hour's sleep, in order to support digestion.

To rest a little after dinner, is farther useful to dry and emaciated persons, to the aged, and persons of an irascible disposition; to those who have spent the preceding night uneasily and sleepless, or have been otherwise fatigued, in order to restore regularity in the insensible perspiration; but in this case the body must be well covered, that it may not be exposed to cold. Such as are fond of sleeping at any time of the day, are usually more indolent and heavy after it than before. A sleep after dinner ought never to exceed one hour; and it is also much better sitting than lying horizontally; for, in the latter case, we are more subject to fluctuations of the blood towards the head, and consequently to head-ach.

Much depends upon the manner of lying in bed, and on the posture to which we accustom ourselves. To lie on the back, with the arms over the head, prevents the circulation of the blood to the arms, and is not unfrequently productive of serious consequences. It is equally pernicious to lie in a crooked posture, or with the breast very low and bent inwards; for the intestines are thereby compressed and obstructed in their motions, and the blood cannot easily circulate downwards; whence may arise giddiness and even apoplexy. Lying on the back is equally improper, and produces frightful dreams, together with many other inconveniences. The reverse posture is likewise noxious, as the stomach is thus violently oppressed, the free respiration much impeded, and the whole circulation of the fluids in the chest and abdomen wantonly prevented, to the great injury of health.

The most proper posture, then, is on one side, with the body straight, the limbs slightly bent (not stretched, because they ought to rest) so that the body may lie somewhat higher than the legs. When the head is laid high, a short sleep is more refreshing than a longer one when it is reclined too low. To healthy people it is a matter of no consequence on which side they lie, and they may safely, in this respect, follow their own choice. Some dietetical observers allege, that it is better to lie in the evening on the right, and in the morning on the left



side; that in the evening the food may more readily leave the stomach, and that afterwards this organ may be better warmed by the liver.

In the evening we should eat light food only, and that sparingly, wait for its digestion, and consequently not lie down till two or three hours after supper. The mind ought to be kept quiet and cheerful, previous to going to rest: we should then, as much as possible, avoid gloomy thoughts, which require reflection and exertion. It is therefore a pernicious and dangerous practice to read ourselves asleep in bed. We would do much better, to exercise ourselves a little before bed time, by walking up and down the room.

Sleep without dreams, of whatever nature they may be, is more healthful than when attended with these fancies. Yet dreams of an agreeable kind promote the free circulation of the blood, the better concoction of food, and a due state of perspiration. The contrary takes place in unpleasant dreams, which excite anxiety, terror, grief, fear, and the like. In the latter case, they are of themselves symptoms of irregularity in the system, of an approaching disorder, or of an improper posture of the body.

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#### *Camomile a Remedy in certain Disorders of the Eyes.*

A MEDICAL correspondent at Madrid has acquainted a friend in Ireland with some astonishing effects of the herb camomile, in certain inflammatory disorders of the eyes. The following among many cases wherein the Doctor has been concerned, is mentioned as a proof of the virtues of this salutary though common herb. Maria de Maros, daughter of a master carpenter, had, for many years, been afflicted with weeping eyes, which discharged an acrimonious humour, that brought on an almost total loss of sight. Alteratives were prescribed to no purpose. At length he made a strong decoction of camomile, boiled in new milk; with this the patient bathed her eyes several times a day, as warm as could be suffered without uneasiness; and in about five weeks her eyes were perfectly restored.



## AGRICULTURAL.

*Remarks on the beneficial Effects of a Variation of Crops.  
Published by order of the Philadelphia Society for promoting  
Agriculture.*

THE earth, in general, is a compound of vegetable matter, formed by nature, to propagate a variety of plants; and those salts, peculiar to each plant, must be extracted from the earth by each particular species of plant: for the land may have strength to bring good *different crops* one after another; but it seldom abounds with one kind of salt, sufficient to produce a good crop of the *same grain, often repeated successively*, unless the land be rich indeed, and the soil, with the climate, well adapted to that kind of grain or plant which is often so repeated. This remark, which will ever be found true, clearly points out the indispensable necessity of *varying crops often, if not ANNUALLY*.

The foregoing observations I make for the benefit of theoretical farmers; as, from their practice, great advantage is to be expected, towards improving agriculture in America; it being this class of men, fertile in genius, emulous to promote their country's good, and able to bear the expense, who in Europe have, by their laudable experiments, led the way for poor farmers to adopt a course of cropping, as approved at this day, in lieu of their forefathers' old established custom.—The basis of this new method is founded on manure, especially from marle; and the superstructure is perfected by crops of pulse, artificial grass, and grain, which they raise alternately: and in this, *systematically* done, is comprised the MYSTERY of real husbandry.

Presuming the following remarks are not generally known, I insert them for the information of the public.

A more beneficial discovery has not been made in agriculture, than that of clover being an infallible preparative for a wheat crop. With once ploughing, I have sowed several hundred acres; and have seen thousands growing, yet never knew one crop to fail, although in some cases the land was poor: but it is particularly agreeable to rich land, as the straw will be strong, the ear large, and the stemming incredible. If ever a marvellous crop of wheat be raised on very rich ground, it must be in this way: for fallows produce a luxuriant, tall straw, weak at the root, with a small ear which will fall.

in proof of the foregoing observations, let reason be attended to. Clover grass affords rest to land, and keeps out weeds; the pasture produces feed in abundance for cattle; the soil or manure of the cattle, with the vegetable salts contained in the large tap-root and heart of the clover, afford vivid manure for wheat. One other advantage arising from this mode of farming is, the furrows being whole, and the root of the grain in them, it admits the water to drain from the root; and the surface of the ground will not rise with the frost, as fallows of fine mould are subject to do. The wheat therefore must stand the winter much the best if sowed after clover with one ploughing.

I shall conclude these remarks with the method of sowing wheat on clover land:

Take an acre of clover land, that has been pastured quite to the ground. In the September of the *second* summer after it was sowed, turn it clean over with the plough. The *same* day it is ploughed sow on the acre three pecks of clean seed-wheat, broadcast; after it is sowed, take a roller and run over the lands, the same way they are ploughed. When that is done, harrow it two or three times over the same way, until the seed be covered: but by no means harrow across the land.

*Essential Properties of a perfect Breed of Black Cattle, designed for the Purposes of the Dairy, &c. as laid down by Mr. MARSHALL.*

1. THE head small and clean, to lessen the quantity of offal.
2. The neck thick and clean, to lighten the fore-end, as well as to lessen the collar, and make it fit close and easy to the animal in work.
3. The carcass large, the chest deep, and the bosom broad, with the ribs standing out full from the spine, to give strength of frame and constitution, and to allow sufficient room for the intestines within the ribs.
4. The shoulders should be light of bone, and rounded off at the lower point, that the collar may be easy, but broad, to give strength; and well covered with flesh, for the greater ease of draught, as well as to furnish a desired point in fattening cattle.
5. The back ought to be wide and level throughout, the quarters long, the thighs thin and standing narrow at the round bone; the udder large when full, but thin and loose when empty, to hold the greater quantity of milk, with large dug veins to fill it, and long elastic teats for drawing it off with greater ease.
6. The legs (below the knee and hock,) straight, and of a

middle length ; their bone in general tight and clean fleshiness, but with the joints and sinews of a moderate size, for the purposes of strength and activity. 7. The flesh ought to be mellow in the state of fleshiness, and firm in the state of fatness. 8. The hide mellow, and of a middle thickness ; though, in our author's opinion, this is a point not yet well determined.

### *Management of Cider.*

[From Poulsson's Daily Advertiser.]

*Cooper's Point, Feb. 18, 1834.*

CIDER is an article of domestic manufacture, which, in my opinion, is the worst managed of any in our country, considering its usefulness. Perhaps the best method to correct errors is to point out some of the principal ones, and then recommend better methods.

One of the first errors in respect to cider is, *gathering apples when wet* ; the next is, *throwing them together exposed to sun and rain, until a sourness pervades the whole mass*, then grinding them ; and for want of a trough, as is sometimes the case, or other vessels sufficient to hold a cheese at a time, putting the pumice on the press as fast as ground ; then making so large a cheese that fermentation will come on before the juice can be all pressed out ; and certain it is that a small quantity of the juice pressed out after fermentation comes on, will spoil the product of the whole cheese.

If then *either* of the above circumstances will spoil the cider, which I know to be the case, what must be the effect of a combination of the whole, which frequently happens.

As I have very often exported the cider to the West-Indies and Europe, and sold it to others for that purpose, without ever hearing of any spoiling ; and as it is my wish to make the productions of our country as useful as possible, I will give an account of my method.

I gather the apples for good cider when *dry*, put them on a floor under cover, have a trough sufficient to hold a cheese at once ; and when the weather is warm, I grind them late in the evening, spreading the pumice over the trough to give it air, *as that will greatly enrich the cider*, and give it a fine amber colour ; and early in the morning press it off. The longer a cheese lies after being ground before the pressing, the better, provided it escape fermentation, until the pressing is completed. The reason is evident from the following circumstance : take a tart apple, bruise on side and let it lie till brown, then taste

the juice of each part, and you will find the juice of the bruised part, *sweet and rich*, though of a tart apple. So if sweet and tart apples are ground together, and put immediately on the press, the liquor therefrom will taste both sweet and tart; but if it lie till brown, the cider will be greatly improved. I always take great care to put cider in clean, sweet casks; and the only way to effect this is to rinse or scald them well as soon as the cider is out, and not to let them stand with a remnant or lees in, which is certain to make them sour, musty, or stink. When my casks are filled, and fermentation takes place, I fill them up once or more a day, to cause as much of the filth as possible to discharge from the bung; when it discharges a clear white froth, I put in the bung slack, or bore a hole and put a spike in it, and thereby check the fermentation gradually; and when the fermentation has subsided, take the first opportunity of clear cool weather to rack [draw] it off into clean casks; to effect which, when I draw the cider out of the casks in which it has fermented, I first rinse the cask with cold water, then put into a hoghead or barrel, two or three quarts of fine gravel, and three or four gallons of water; work it well to scour of the yeast, or scum and sediment, which always adheres to the cask in which cider ferments, and if not scoured off as above directed, will act as yeast when the cider is put in again, bring on a fretting, and spoil or greatly injure the liquor; after scouring rinse as before. I find benefit in burning a brimstone match, suspended in the cask by a wire, after putting in two or three buckets of cider; the best method for which process is, to have a long tapering bung, that when driven in, the different ends will fit most common bungholes, with a large wire in the small end with a hook to the match, which for a hoghead should be sufficient for a hive of bees. Cider intended to be kept till warm weather, I rack in cool clear weather, the latter part of February or the beginning of March. It is best to keep the cask full and bunged as tight as possible.

I make no doubt but many are as well or better acquainted with making cider as myself; but as I have seen no method described, which I have found on experience to be preferable, I have submitted the foregoing, which is at your service, or the public's, if it is deemed worth communicating.

JOSEPH COOPER.

### *To prevent the Measles in Swine.*

It frequently happens that swine are killed when disordered by the measles; which is easily discovered by the flesh or meat containing small globular red or white pustules, of different

sizes, varying according to the different degrees of the disease, which originate from being fed with musty damaged corn, or some unwholesome food; or from its being boiled in lead or copper vessels, in which it hath lain too long; or from their being kept in a wet and dirty pen; either of which causes tends to obstruct the circulation of the fluids; hence arise those globular pustules, which are the juices rendered vici'd and coagulated. About once a week mix two spoonfuls of madder in their food, which prevents obstructions, acting as a diuretic, and is at the same time an astringent. And on some other day in the week, give a spoonful or two of an equal quantity of flour of sulphur and saltpetre, well pounded and mixed, which purifies and cools the blood. All these different articles added to each pail of food in the morning, on separate days, prevent the measles, keep the swine extremely healthy, and fatten them more expeditiously.

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*Extract from Dr. Anderson's Retirements.*

EVERY attentive observer will remark among the plants of almost every kind of crop, some individual stalks which are distinguishable from the others by a greater degree of health, or luxuriance, or profligacy, or earliness, or some other peculiarity. A friend of mine remarked some years ago a particular stem of peas among his earliest crop, which came into flower and ripened long before the others. He marked this stem and saved the whole of its produce for seed. These came as much earlier as they had originally done. This produce was also saved for seed; and thus he obtained a particular kind of early pea, that came at least a week before the *best sort* he could buy in the shops, if sown at the same time with them. The Doctor relates facts similar to this respecting wheat and beans. The general idea he means to inculcate is obvious, and extremely worthy attention.

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*The Husbandman and the Politician contrasted.*

*Extracted from an Address delivered to the Agricultural Society in New-York, by ROBERT K. LIVINGSTON, Esq.*

THE little politics of our town, our country, or even of our State, are mere matters of a day; and however important they may seem in our eyes, while we ourselves are the actors on this busy stage, they will appear to others of too little moment to arrest their attention. Our fathers were politicians, their fathers were politicians, and yet we hardly know the parts they

severally acted, or even the names or principles of the parties they opposed or supported. In like manner, the intriguing politicians and the wordy orators of the present day, will be buried with their principles and their parties in eternal oblivion; when the *man*, who has introduced a new plant, or eradicated a destructive weed; who has taught us to improve our domestic animals, or to guard against the ravages of noxious insects; who has invented a new implement in husbandry, or simply determined the angle the mould-board should make with the plough-share, *will be remembered with gratitude, as the BENEFACTOR OF SOCIETY.*

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## MISCELLANEOUS ARTICLES.

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### *Pocock's Pickle for Meat.*

**ADMIRAL POCOCK'S** pickle is preferable to most others, when applied to family beef, pork, or mutton. It is thus made:—*Water*, four gallons; *sugar* (or molasses) one pound and a half; *saltpetre*, two ounces; *salt*, the bay or large sort, six pounds. *Boil* all together in an iron pot or kettle, and skim it repeatedly, as long as any scum arises; then take off the pot to stand till the liquor is cool. The meat being placed in the vessel meant to hold it, pour the cold pickle on the meat till it is all covered, and in that state keep it for family use. The beef, after lying in the pickle ten weeks, has been found as good as if it had not been salted three days, and tender as a chicken. If the meat is to be preserved a considerable time, the pickle must be *boiled* once in two months, skimming off all that rises, and throwing in during the boiling two ounces of *sugar* and half a pound of common *salt*: thus the same pickle will hold good for twelve months. This pickle is incomparable for curing *hams*, *tongues*, and *hung beef*. When tongues and hung beef are taken out of the pickle, clean and dry the pieces; then put them in paper bags and hang them up in a dry warm place. Some who have tried this method, choose their meat *fatter*; and instead of six, use eight or nine pounds of salt. In *very hot weather* it is necessary, before the meat is put to the pickle, to rub it well over with salt, and let it lie for one, two, or three hours, till the bloody juices *run off*. If the meat in this case is the least tainted before it is put to the pickle, it will be entirely spoiled in a day's time, in hot weather.

☞ Pocock's pickle is found so valuable that no family ought ever to be without it.

*Durable Potatoe Yeast.*

Boil and peel the potatoes as for the table; mash them very fine; have a pot of water boiling, in which put a handful of hops; put the potatoes in it, and let it boil for about ten minutes, then take it off; have a double handful of flour in a jar: stir the potatoes into this, mixing them well together; when cool add some good yeast.

*To preserve it for use.*—Take a dish of flour, and, while the yeast is in the highest state of fermentation, stir it with the flour lightly with your hands, so as to damp the flour with the yeast, but not to make a dough of it; then dry it: when perfectly dry, keep it in a clean linen bag to hang in your kitchen. When you want to make bread, or renew your yeast, you must dissolve a piece of this dried paste, and mix it up with a small quantity of flour; then it is ready for making your bread.

*Result of Meteorological and other Observations, for July, 1807;  
made at Warwick, Portsmouth, and Hartford.*

| July 1807. | Mean degree<br>at sun-rise. | Mean deg.<br>at 2 P. M. | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marrings. | Births. | Deaths. |
|------------|-----------------------------|-------------------------|------------------------------|--------------------------------|-----------------------------|----------------------|-----------|---------|---------|
| Warwick    | 61½                         | 79½                     | 70½                          | 12 d. 92°                      | 2 50°                       | S. & S. W.           | —         | 1       | 1       |
| Portsmouth | 63½                         | 77½                     | 70½                          | 13 90                          | 2 54                        | Southerly.           | —         | —       | —       |
| Hartford   | 63½                         | 81½                     | 72½                          | 16 90                          | 3 51                        | S.                   | —         | —       | —       |

## WEATHER.

|                                      |                         |
|--------------------------------------|-------------------------|
| 1 } pleasant                         | 17 } showers            |
| 2 } weather;                         | 18 } with               |
| 3 }                                  | 19 } Sund. thun-        |
| 4 }                                  | 20 } der                |
| 5 } Sund. some-                      | 21 } cloudy             |
| 6 } times                            | 22 } cloudy, showers    |
| 7 } cloudy,                          | 23 } cloudy, heavy rain |
| 8 } but                              | 24 } fair,              |
| 9 } no rain,                         | 25 } light              |
| 10 } excepting                       | 26 } Sund. showers in   |
| 11 } a little sprinkling on          | 27 } some places        |
| 12 } Sund. the 4th. } First Quarter. | 28 } cloudy, rain       |
| 13 } moderate-rain, thunder          | 29 }                    |
| 14 } fair                            | 30 } fair               |
| 15 } showers, with                   | 31 }                    |
| 16 } thunder                         |                         |

Depth of water fallen in rain, *Warwick*, 3½ inches.

*Warwick, June 31, 1807.*

At the commencement of this month the whole vegetable kingdom, checked by the "chilling damps" of June, appeared in a

very unhealthy condition, and far behind the time of year. The two first weeks of the month were fair, and considerably warm, but did not seem to have the desired effect on vegetation. Our crops of grass were much smaller than usual, and so late that but few people had begun haying till about the 13th. at this time the rains commenced and intercepted the business in a great degree; we have been favoured with repeated showers and warm rains the remainder of the month; which has produced the greatest change in the appearance of the face of the earth, perhaps, ever known in the time. Vegetation, roused from its torpor, presents us with almost inconceivable instances of its rapidity. The growth of the unmown grass, in the course of fifteen days, added to its quantity at least one-fourth part. Winter grain was fit for the harvest about the 30th, which was one week later than last year.—Healthy as usual.

W. COBB, JUN.

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*Hartford, July 31, 1807.*

Much hay and grain injured by the long season of wet weather. Grain grown. Crops of English grain light. Wheat much blasted. Harvest about a fortnight later than usual. Corn looks well. Gardens much injured by worms.

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### *The Farmer's Calendar for September.*

THE business of a farmer has been compared, and very justly, to a hoop, which has no end. Indeed, the labours of one season are not completed before some provision is necessary for the next. Much has been said on the importance of selecting seed-corn before harvesting, from the most promising plants, while standing in the field. (*See page 103 of the Register, where this subject is fully considered, and the most ample directions given, by one of the greatest practical farmers in the United States.*) Many an one, perhaps, has read the Register and grudged his dollar, without having practised at all upon those rules by which he might have very considerably increased the produce of his fields. It is really wonderful that people should be so slow in adopting improvements of this nature, when the happy tendency of them is so obvious.

Remember, should there be a war, it will happen, in many instances, that a little *cider* will be the best liquor you can afford to drink yourself or give to a friend. Then make it good. Follow the directions given in this and in some former numbers of the Register, and that will be sufficient. You will then have no occasion for a wry face when you drink yourself, nor a blush when you present the glass to a friend.



The connexion there is between malignant distempers and dirtiness, has been abundantly demonstrated in many instances of fevers and dysenteries, in the United States. Therefore, be particularly attentive to *cleanliness*, especially at this season of the year. Neatness and elegance are conducive to good health as well as to good husbandry. It often happens, that in cellars, and around dwelling-houses, in pig-sties and cow-pens, near the house, there are accumulated great quantities of excrementitious and corrupting substances, the refuse of house-keeping, entrails of fish and poultry, parings and skins of vegetables, &c. which, if seasonably carted away, tend eminently to fertilize the fields and promote the growth of vegetables; while, at the same time, by remaining, they render the house foul and unhealthy, by the extrication of noxious vapours. When I see a farmer permit such unwholesome substances to collect around his habitation, I cannot help reflecting on the danger which awaits him. The manure, which ought to have been carried away and spread over his lots, serves, as it lays, but to make his family sickly, to disable his labourers, and lead him to the dubious and expensive routine of physic; and as in common life as well as in logic, one blunder leads to another, the want of crops, and the consequent failure of income, drive him to mortgages and executions, those fatal expedients of the law.

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## N O T E.

### *First Volume of the Register.*

IT was contemplated, at the commencement of this publication, that the first volume should embrace all the numbers published in *three years*. It is now thought proper, for various reasons, so far to deviate from our original design, as to close the first volume at the end of *two years*; and so on, one volume every two years. The first volume of the Register, therefore, will close with December next, when there

will be published an index to the volume; and the second volume will commence with January, 1808. The editor wishes to be allowed to consider all his *present subscribers* as subscribers to the second volume, who do not express a contrary inclination by the *first of December* next, as it is necessary he should know the number of his subscribers, previous to commencing the second volume.

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### CONDITIONS OF THE REGISTER.

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CONDUCTED BY DANIEL ADAMS, M. B.

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THE  
*Medical and Agricultural Register.*

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VOL. I.]      SEPTEMBER, 1807.      [No. 21.

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M E D I C A L.

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DR. ADAMS,

If you think the following worth publishing, it is at your service.
J. G. COFFIN.

For the MEDICAL AND AGRICULTURAL REGISTER.

NOTHING is more common than to hear complaints against the prevalence of quacks, and the multiplication of patent remedies, while the impositions of the former find subjects enough for their trade, and the bad effects of the latter are carefully kept out of sight, by those whose business it is to silence truth, and to propagate deception. Nor is it very likely these evils will cease so long as there are men sufficiently weak to believe whatever is roundly asserted, and there are characters sufficiently depraved so to assert whatever will answer their purpose. Still, for those who can discriminate, and for those who are willing to be influenced by reason, it is not useless labour to expose the acts of imposture, wherever they can be detected.

These remarks are occasioned by three instances which have come under my notice, in which the use of that infallible specific for most of the diseases of the human body, the "Bilious Cordial," has been attended with injurious effects. The last instance was the case of a young man considerably debilitated, but not otherwise out of health.

This young man went to the *learned inventor* himself, who of course recommended the Bilious Cordial, and which the patient, contrary to the remonstrance of his friends, made use of. The result was, that his weakness was greatly increased, with

VOL. I.

W.

total loss of appetite, night sweats, &c. He is now in the country, in a doubtful, if not in a hopeless state of exhaustion. This sufferer was, unfortunately, as I believe, for him, a former acquaintance of the "Blue Bottle"* gentleman; and it was natural enough in him, who knew nothing of the diseases, and little of the character of men, to imagine that the "Patentee" himself knew best the properties of his own *discovery*, and that he was too honest to recommend what would not be beneficial in his case.

The Patentee, who "studied out and acquired" this invaluable remedy, says, "it is a vegetable preparation, which may be taken in all climates, by either sex, at any age or circumstances in life. It is a restorative cathartic, a carminative, diuretic, and menagogue, and a predominant detergent, quite palatable; calculated effectually to cleanse, warm and strengthen, a foul, cold, bilious and oppressed stomach; sweeten the blood, and regulate constipated bowels; promote digestion; regulate the appetite, and give a spring to the mental faculties." That it has had this last effect on the author no one can doubt, who will just take the trouble to read his "Description, use, &c. of the Bilious Cordial," a very ingenious pamphlet of forty-eight pages.

After reading the above extract, the philanthropist would naturally wish, that a remedy thus estimable might be so well known, and accompanied, in its diffusion through the country, with such circumstantial and plenary "Directions," as to enable every parent and guardian of youth safely to give it in all those numerous and various complaints of the human system, in which it is pre-eminently curative. And what ought to be the public gratitude to Mr. Chamberlain, when it is known that the pamphlet in question in a great measure supplies this desideratum! It contains at least six ample directions, in which much is said about and "in favour of the Bilious Cordial," together with much *instruction* how to employ it, &c. all of which, valuable as it is, if neglected, must arise from the fault of those who do the subject *injustice*, not from those who labour to promulgate it. It is a very pleasant thing to know, with regard to this most friendly of all medicines, that beside its intrinsic virtues, enough surely to recommend it to all *reasonable* people, it possesses a wonderful power of accommodation as to its manner of operating, so much so that the *proprietor* assures us, that it may be taken in any quantity all the way "from a table spoon-ful to a pint!"

Now it has been the misfortune of most other active medicines, that when misapplied, they have done mischief in pro-

* Sold at the sign of the Blue Bottle, Court-Street, Boston.

portion to their good effects when properly administered. Not so with the "Bilious Cordial," this discretionary balsam, which may be called "the poor man's blessing, and the rich man's life," is so accommodating as I said before (excuse repetition, for too much cannot be said in favour of a *good* thing so much undervalued) that if it be possible in any case to take too large a dose of it, the only inconvenience is—the loss of the article!

But I think I have said enough, and am willing to stop, not because I think it possible to say too much in commendation of the "Bilious Cordial," but because I conceive that what has already been said here and elsewhere to call the public attention to the general interest ought to be sufficient, and because, furthermore and lastly, if this effect is not produced, it must be owing to an inattention and obstinacy, which are in all probability incorrigible.

Boston, September, 1807.

On the Causes of Death in Diseases that are not incurable.

[From Dr. RUSH'S Introductory Letters.]

IN considering the causes of death in diseases which are not incurable, I shall

I. Mention those which are derived from Physicians.

II. Those which arise from the conduct of sick people.

III. Those which arise from the conduct of their attendants and visitors.

1. Under the first general head I shall first mention *ignorance* in a physician, arising from original incapacity, or want of proper instruction in medicine.

2. A cause of death in diseases that are not incurable, arises from the *negligence* of physicians. This negligence extends to their delays in not obeying *immediately* the first call to a patient, to their inattention to all the symptoms and circumstances of a disease in a sick room, and to the time of the visit, not being accommodated to those changes in a disease, in which remedies of a certain character can be applied with effect. Negligence from the first of these causes has occasioned the death of many patients.

3. Physicians render curable diseases mortal, in many instances, by their connecting the measure of their services to the sick with pecuniary considerations. This is one reason, why more of the poor than of the rich die of mortal epidemics. Extravagant charges for medicinal advice and attendance, have

produced such delays in sending for a physician, as have given a curable disease time to advance to its incurable stage.

4. Forgetfulness in a physician to visit his patients, and to send them medicines at regular and critical hours.

5. A preference of reputation to the life of a patient, has often led physicians to permit a curable disease to terminate in death. The death of a patient, under the ill-directed operations of nature, or what are called lenient and safe medicines, seldom injures the reputation or business of a physician. For this reason many are permitted to die, who might have been recovered by the use of efficient remedies.

6. A *sudden indisposition* attacking a physician, so as to prevent his regular and habitual visits.

7. Patients are sometimes lost in curable diseases, by fraud and uncertainty in the composition and doses of medicines, by which means they produce greater or less effects than were intended.

8. The prescriptions of physicians written in a careless and illegible hand, have sometimes produced mistakes in the exhibition of medicines, which have been the means of destroying life in diseases that had no tendency to death. Verbal prescriptions have occasionally been followed by the same unfortunate issue.

II. *Causes of death, which originate with sick people.*

1. *Ignorance.* Medicine has, unhappily for mankind, been made so much of a mystery, that few patients are judges of the talents or qualifications of physicians; hence the bold and artful are often preferred to the modest and skilful.

2. *Prejudice* in patients in the choice of physicians; this prejudice is either of a religious or political nature. The former leads men to prefer physicians of their own sect, the latter of their own party, without any regard to talents or knowledge.

3. *Fashion* has a powerful influence in determining sick people in the choice of a physician, and as the leaders in it are generally as ignorant as those who follow them, of the true character of physicians, men are preferred who add by their ignorance to the mortality of curable diseases.

4. Many patients die of curable diseases by neglecting to apply in *due time* for medical aid. *Cancers* and *consumptions* have been called incurable diseases. This is far from being true. If the tumors which nearly precede all cancers were extirpated immediately after they were discovered, and if the premonitory symptoms of consumption were met by proper remedies, we should seldom hear of persons dying of either of those diseases.

5. *Neglect* in patients to comply with the prescriptions of their physicians. We sometimes discover, after the death of our

patients, medicines that would probably have saved them, upon a mantle-piece, or in the drawer of a dressing-table. Patients who recover, sometimes humorously insult their physicians, by telling them of the improper and even prostituted use to which they have applied their medicines. Sir Richard Nash was once asked by his physician if he had followed his prescription. "If I had," said Sir Richard, "I should certainly have broken my neck, for I threw it out of my window."

6. The neglect of patients to make use of the remedies of their physicians, at the *time* and in the *manner* prescribed; but not only by neglecting to use remedies at the *time*, but by using them in a *different manner*, are frequent causes of death in curable diseases.

7. The *indulgence* of the *appetite* by sick people for food and drinks improper from their quality or quantity.

8. *Fear* has often rendered diseases fatal.

9. A *dread* of the expenses of medical services has sometimes, by preventing an application to a physician, occasioned death from diseases that might have been cured by a single dose of physic.

10. A peculiar irritability of temper has sometimes induced death in diseases which, under other circumstances, might have been cured. A British officer died of a sudden paroxysm of anger in the yellow fever, because his nurse refused to indulge him in plentiful draughts of wine and porter.

11. Improper applications to business or study, and riding out prematurely have in many instances converted a curable disease into a mortal disease. Dr. Campbell of Kendal, says he once lost a patient after the crisis of a fever by sitting up a few minutes in his bed to answer a letter. I have known two instances of death from the impatience of sick people to enjoy the benefits of exercise and country air.

12. An excess of delicacy by disposing patients to conceal the nature and seats of their diseases, is sometimes the cause of their mortality.

13. Love, debt and guilt, which are seldom acknowledged by sick people, frequently united with diseases of a mild nature, render them incurable.

14. Habits of secret drinking.

III. *Causes of death which arise from the conduct of the attendants and visitors of the sick.*

1. I shall first mention the fatal effects of *consultations* between physicians of opposite medical principles. Consultations lessen responsibility, and by blending render inert or hurtful, modes of practice, which, if pursued separately, might have been successful; for it is a fact that there are not only *different* modes of

curing the same disease, but the same disease may be cured by *opposite* medicines. Next I shall mention the conduct of nurses as a frequent cause of the fatal issue of diseases. Far be it from me to blame indiscriminately this class of people. Many of them deserve praise for their humanity, and some for their skill in the management of the sick; but melancholy experience has taught us that death is often the effect of negligence, ignorance, and wickedness, which they discover in the following ways:

(1.) They neglect to give sick people medicines, drinks, and diet, at the *time* and in the *manner* in which they are prescribed. Further, nurses often neglect to change the body and bed linen of the sick. They keep them too hot or too cold, or they give them too little or too much air.

(2.) Nurses frequently assist diseases in destroying life, by their ignorance.

(3.) Nurses render curable diseases mortal by robbing sick people of those drinks and aliments that are prescribed for them. This vice is the parent of greater evils than either negligence or ignorance; for when drinks, which are frequently of a spirituous nature, are taken by nurses, the stupidity or intoxication which is produced by them, leads them to treat sick people with cruelty, and thus to give a mortal issue to a simple disease.

(4.) Nurses often desist from giving medicines in the most critical stages of diseases, from despair of their doing any good, or from the fear of exciting unnecessary pain, in what they suppose to be the last moments of their lives.

2. Of the visitors of sick people who contribute to render curable diseases fatal, I shall first mention physicians who are not sent for, and who obtrude their visits as friends. It will be impossible for patients to avoid asking them questions, and it will be difficult for them to answer them in such a manner as not to interfere with, or defeat the plans of cure of the attending physician.

Visitors of another kind drawn from the neighbourhood, or circle of consanguinity, help to render simple diseases mortal, by their loud or long conversation, by their tales of sickness and death from similar diseases, by urging them prematurely or indelicately to settle their affairs, by sapping the confidence of sick people in their physician, by advising heterogeneous consultations, by dissuading them from the use of painful or disagreeable remedies, or by persuading them to make use of such as are pleasant but feeble, and which they say have been effectual in supposed similar cases.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

If you think the following "Extract" may contribute in any measure to the furtherance of the objects contemplated by your periodical publication, you will gratify one, at least, of your subscribers by introducing it.

Massachusetts, August, 1807.

PASSAMAQUADDY.

Extract from a Manuscript Oration, read before an Association of Physicians, instituted in one of the Counties in this Commonwealth a few years since, for the Improvement of Medical Knowledge, "On the Objects of the Association."

"With a view to enlarge our knowledge of the nature of diseases, we ought to open dead bodies as often as it may be convenient. Dr. Rush recommends to his pupils to improve such opportunities as often as possible "without doing violence to the feelings of" their "patients, or the prejudices of the common people." We know that the most rational method of treating diseases is founded on a knowledge of their seats and proximate causes; and it has been long confessed that the extispicy,* or history of the phenomena discovered on opening bodies, dead from previous disease, is of the last consequence in acquiring that knowledge. Dr. William Rowley, in his learned treatise on "Nervous diseases," has, perhaps, given the world the best history of the extispicy of diseases that can at present be found, and places in a clear point of view the vast importance of that branch of our inquiries. It is to be hoped, my friends, that a superstitious veneration for the relics of the dead will ere long be done away, and that physicians will be permitted unreservedly to explore an avenue so highly important towards the investigation of the nature of diseases."

Important Hint.

For the cure of a vitiated palate, we cannot suggest a better remedy than *temperance* and occasional *abstinence*.

Dr. Willich.

* Every well-read physician will recollect that I am not *original* in the use of the word *extispicy*; therefore, it is believed that no apology is necessary for introducing it in this place.

AGRICULTURAL.

*Observations on the best Method of restoring worn-out soils,
without Manure.*

THE first thing necessary on such lands, is immediately after harvest, to turn them up with the plough as deep as possible. In order to do this effectually, it will sometimes be needful that a second plough should follow the first in the same furrow; which will throw the mould over, and bury the stubble and weeds. In this case there will be a new soil uppermost, which, being fresh to the air, will receive much greater and more lasting benefit from the sun, the rain, and the frosts, than it otherwise could do; as thereby it will attract a greater quantity of the nutrition, which these afford. The stubble and weeds being by this method of ploughing buried deep, will much sooner rot, than when just covered. In this state the ridges will lie high; and if the land be wet; or of the brick-earth kind, they will be full of clods or large lumps.

No time should now be lost by delaying to render this newly turned up soil as fine as harrowing can make it. I know that, in this particular, my judgment will be called in question by numbers. Common farmers will say, "To what purpose is all this expense and labour, when, if the land be suffered to lie in its rough state through the winter, the frost and the rains will do the work for you?"—But this is the language of the indolent and inexperienced husbandman only.

I am convinced, by repeated experiments, close observation, and plain reasoning on known facts, that lands which are made fine before the sharp frost and winter rains come on, will receive a much greater share of their influence than any other. If the land be left in a rough state, there is seldom time for the rains and frost to affect more than the outside of the large clods or lumps: the outside will indeed be pulverized; but the middle of the lumps, wherever they are large, will be found nearly in the same hard stiff state, as when turned up by the plough. Hence it must appear to every one, that in this case, the benefit of air, winter rains, and frosts on lands thus left, is partial; and the consequence is, that harrowing it in the spring, when these are over, is too late for its receiving the benefit which would otherwise have accrued from them; and the power of vegetation is not so vigorous.

But to make winter fallows as fine as they can be in autumn, and then ridge them up in that pulverized state, is acting in a

manner the most conformable to nature. The greatest possible quantity of surface is, by this means, exposed to the atmosphere; and the land is left in a state in which the rains and the frost are most easily admitted. They will then penetrate and enrich the whole mass to a greater depth.

If the frost penetrates a quantity of earth, formed into a large hard clod, partially, on account of its bulk and hardness (which is always found to be the case) it is evident that the same clod, broken into four parts, would be thereby penetrated four times as much; or, in other words, four times the quantity of earth would be affected by it, and, on a thaw, be pulverized. For we find that, after the breaking up of a severe frost, all the small clods crumble easily into powder; while the larger ones are only made smaller, by the crumbling of their surface to a certain depth.

By this deep ploughing, which I have recommended, the worn-out soil being turned in, the second stratum, or fresh earth, is now uppermost; and having been made as fine as it can be in autumn, and thus exposed to the air, the rain, and frost; during winter, and cleansed of its impurities it becomes a fresh fertilized earth, in the best possible state for vigorous vegetation.

Many farmers will probably object to this method, on account of its being attended with a little extra expense. But I wish them to consider, first, that this expense is more in appearance than reality; for less labour is requisite in the spring—and secondly, that it will be amply repaid by the goodness of succeeding crops.

About seven years since, I made a comparative experiment of this kind on a field of ten acres, the soil of which was as equal as possible in goodness. The one half of this field I left, after ploughing, in its rough state, the surface being covered with large hard clods, the other half I made as fine as possible, by harrowing with ox-harrows, and beating in pieces the hardest and largest clods, which the harrow would not break.

In the spring, the part which I had harrowed, was, without any additional labour, much finer than I could render the other (which was left in its rough state) by repeated harrowing; for the rain and the frost having not penetrated the middle of the large clods, they had received no benefit from either, and were as hard as bricks, being only lessened in size.

I sowed the whole field with barley the last week in April, and threw nine pounds of broad clover in with it. On reaping it, I kept the crops separate; the part left rough produced twenty-four bushels per acre; the other thirty-one; the latter by much the finer sample. The crop of clover next year was equally in

favour of the method I recommend, being heavier by near half a ton per acre.

The extra expense, on this part, was only about eight shillings per acre; the extra produce yielded an extra profit of more than twenty shillings per acre.

Directions for the culture of the currant-bush.

The currant-bush, though a shrub that grows almost spontaneously, requires nevertheless some dressing; in regard to which the following directions may be of service.

Plant them round the quarters in your garden, that they may have the benefit of the dung and culture annually bestowed thereon, which will consequently make the berries large and the juice rich.

The red currant is preferable to the the white, as yielding richer juice, and in much greater quantity.

Take the most luxuriant slips or shoots of a year's growth, set them in the ground about eight inches deep, and not less than twenty four distant from each other; these never fail of taking root, and generally begin to bear in two years. For the rest, let them from time to time, be treated as espaliers (but not against a wall) observing to keep the roots, especially in the spring of the year, free from suckers and grass.

This treatment is the more necessary, as the goodness of the wine in a great degree depends on their having the full benefit of the sun and air, to maturate and give the berries a proper balsamic quality, by exhaling a due proportion of their acid watry particles.

Receipt for making currant-wine.

Gather your currants when full ripe, which will commonly be about the middle of July; break them well in a tub or vat, (some have a mill constructed for the purpose, consisting of a hopper, fixed upon two lignum vitæ rollers) press and measure your juice, add two-thirds water, and to each gallon of that mixture (i. e. juice and water) put three pounds of muscovado sugar (the cleaner and drier the better; very coarse sugar, first clarified, will do equally well) stir it well, till the sugar is quite dissolved, and then tun it up. If you can possibly prevent it, let not your juice stand over night, as it should not ferment before mixture.

Observe, that your casks be sweet and clean, and such as never have had either beer or cyder in them, and, if new, let them be first well seasoned.

Do not fill your casks too full, otherwise they will work out at the bung, which is by no means good for the wine; rather make a proportionable quantity over and above, that after drawing off the wine, you may have sufficiently to fill up the casks.

Lay the bung lightly on the hole, to prevent the flies, &c. from creeping in. In three weeks or a month after making, the bung-hole may be stopped up, leaving only the vent-hole open till it has fully done working, which generally is about the latter end of October. It may then be racked off into other clean casks, if you please; but experience seems to favour the letting the wine stand on the lees till spring, as it thereby attains a stronger body, and is by that means in a great measure divested of that sweet, luscious taste, peculiar to made wine: nay, if it is not wanted for present consumption, it may, without any damage, stand two years on the lees.

When you draw off the wine, bore a hole, an inch, at least, above the tap-hole, a little to the side of it, that it may run clear off the lees. The lees may either be distilled, which will yield a fine spirit, or filtered through a Hippocrates's sleeve, and returned again into the cask. Some put in the spirit, but I think it not advisable.

Do not suffer yourself to be prevailed on to add more than one-third of juice, as above prescribed, in hopes the wine may be richer, for that would render it infallibly hard and unpleasant; nor yet a greater proportion of sugar, as it would certainly deprive it of its pure vinous taste.

By this management you may have wine, letting it have a proper age, equal to Madeira, at least superior to most wines commonly imported, and for much less money.

In regard to the quantity of wine intended to be made, take this example, remembering that twelve pounds of sugar are equal to a gallon of liquid: for instance, suppose you intend to make thirty gallons only, then there must be,

8 gallons of juice,	24 galls. of mixture,
16 of water,	multiplied by 3
—	—
24 gallons of mixture,	12) 72 lb of sugar,
6 galls. produced by sugar,	equal to 6 gallons of liquid.
—	—
30 gallons.	

And so proportionably for any quantity you please to make.

The common cyder-presses if, thoroughly clean, will do well in making large quantities; the small hand-screw press is most convenient for such as make less.

N. B. An extraordinary good spirit, for medicinal and other uses, may be distilled from currant-juice, by adding a quart of molasses to a gallon of juice to give it a proper fermentation.

For the MEDICAL AND AGRICULTURAL REGISTER.

THERE are more estates made by *economy* than by large incomes. The *latter* every one cannot enjoy, but to be prudent and not to suffer waste, is in the power of all. One cent on a single meal of victuals, may be thought unworthy of notice and hardly worth the care of saving; yet, when the sum of a year's meals is calculated for a person, a family, and a nation, it becomes striking and important. A cent a meal, amounts to three cents a day.

	Dolls.
One person, at three cents a day, saves in a year	11
One family of five persons	55
A nation of five millions of people	55,000,000

The cent thus saved by the good house-wife, on every *plentiful* meal of the *wholesomest* food would be sufficient for maintaining the most desperate war by the freemen of America, in defence of their country, against the *wiles* and the *violences* of the great enlightened world.

Advantages of Carrots in fattening Oxen, &c.

NOTHING can exceed this root for fattening oxen; but they should have some sweet hay to eat with it, and they will thrive much better on it if they are stalled. It nourishes them much, and soon makes them fit for the butcher. Some oxen will not take to eating them kindly at first. For those they should for a time be parboiled; but they must every day be less and less boiled, till they come to eat them quite raw, which in a little while the nicest will do. I also find carrots excellent for increasing the milk of cows.

Hogs are very fond of carrots, and they make them thrive apace; but they should always be given to them boiled, as they will with great difficulty be induced to eat a sufficient quantity of them raw. It will be proper, however, to give them before they are killed, either a few bushels of barley meal, or some grey peas, boiled, or some corn, which will complete their fattening to admiration.

There is not a better and more heartening food for horses than carrots, if given them with discretion. They need have no corn, and much less hay than they would otherwise eat. I have all my life heard it said, that carrots were exceeding good, to make horses long-winded; and some jockies will, I have been informed, feed a broken-winded horse some little time with carrots before they sell him, when he may be very well passed off for a horse that is only a little thick winded.

A horse-dealer in my neighbourhood, when he buys a poor, half-starved beast, if he has youth on his side, always fats him

up with carrots before he takes him to market ; and this practice he finds answers very well, as the horse is sooner got into flesh with carrots than any other food ; and they are besides wholesome, breeding in him no foul humours.

All the danger seems to be to the purchaser, who, if he imprudently put the horse to too hard work, is in a manner sure to break either his wind or his heart ; for as the horse was very suddenly got into flesh, his strength is not proportioned to his bulk, till he has been kept some time on dry meal.

That a horse thus fed should not be immediately fit for any hard labour, must not be used as an argument against carrots being a proper food for horses. It must be considered, that this man takes a half starved horse, and gives him at once his fill of a nourishing food ; in fact, too nourishing, as it fills him with flesh faster than he can have time to gather strength.

MISCELLANEOUS ARTICLES.

Result of Meteorological and other Observations, for August, 1807 ; made at Deerfield, Warwick, Portsmouth, Smithfield, (R. I.) Hartford, (Conn.) and Boston.

August, 1807.	Mean degree at sun-rise.	Mean degs. at P. M.	Mean degree of the month.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Deerfield	62 $\frac{3}{4}$	79 $\frac{1}{2}$	75 $\frac{3}{4}$	15, 17, 31, 88 $^{\circ}$	24	53 $^{\circ}$	S.		
Warwick	60 $\frac{1}{2}$	80	70	2, 18, 31, 86	24	45	S. W.	—	1
Portsmouth	67	76 $\frac{1}{2}$	69 $\frac{1}{2}$	10, 18, 31, 84	25	54	S.	4	
Smithfield	63 $\frac{1}{2}$	75 $\frac{1}{2}$	69 $\frac{1}{2}$	10	83	24, 26	52	S. W.	
Hartford	63 $\frac{1}{2}$	80 $\frac{1}{2}$	72	31	88	24	50	S. & S. W.	
Boston	63 $\frac{1}{2}$	74 $\frac{1}{2}$	69 $\frac{1}{2}$	10	88	24	52	S. W.	

WEATHER.

1st day, fair.	16	Sund.	
2—Sund. clouds and sunsh. alternately.	17	fair,	
3—cloudy, some showers. <i>New Moon.</i>	18	some	<i>Full Moon.</i>
4—rain.	19	clouds.	
5 } fair, brisk winds and flying	20		
6 } clouds ; at <i>Portsmouth</i> on the	21	rainy.	
7 } 7th a very heavy thunder shower.	22		
8—fair, shower at night.	23	Sund.	
9—Sund. fair.	24	fair	
10—fair, show. at night. <i>First quar.</i>	25	and	
11—cloudy.	26	pleasant.	
12—pleasant.	27		
13—overcast, rain at night.	28	cloudy, rain.	
14—cloudy, rain at night.	29	foggy mornings,	
15—rain forenoon, fair afternoon.	30	Sund. then	
	31	pleasant.	

Quantity of water fallen in rain, *Warwick*, 7.45 inches.
Smithfield, 8.55 inches.

Warwick, August 31, 1807.

THIS month has been warm and wet, the wind southerly, and the air very disagreeable. Grain has been considerably damaged by the wet weather. The farmers are but just finishing their English hay. The meadows are covered with water, and no hay of consequence has been got from them.

State of health. A considerable number of cases of fever have occurred; some of which run immediately into the putrid and nervous state.

W. C.

Smithfield, August 31, 1807.

THIS month has been warm and very wet. Rivers and springs are high for the season. There have been but few days of clear, elastic, agreeable air, during the month. The atmosphere has been loaded with exhalations, which its density has scarcely been sufficient to bear up to the region of clouds. This rarity has occasioned general complaints of a disagreeable relaxing closeness in the air. Indian corn is backward; and it is believed that the cool nights of the 24th, 25th, and 26th, have considerably injured the crop. Vegetation has been rapid during the month.

State of health more unfavorable. The influenza is very prevalent, and some cases of fever.

"When o'er this world, by equinoctial rains
Flooded immense, looks out the joyless sun,
And draws the copious steam from swampy fens,
In vapours rank and blue corruption wrapt,
_____ then, wasteful, forth
Walks the dire power of pestilential disease."

A SMITHFIELD SUBSCRIBER.

Hartford, August 31, 1807.

Much cloudy, wet weather. Early fruit plenty, but not so good as in other years. Influenza very rife; in some instances, fatal.

Deerfield, August 3, 1807.*

A very wet month and healthy except at the close when the influenza began to prevail. Crops of grass extraordinary good.

* *July*—Month very wet. English grain some blasted, except early sowing. In some instances the flies did considerable damage to the wheat, but not so much as was generally expected. Month very healthy. Sunday the 19th a remarkable hail storm attended with rain, lightning and thunder passed over several towns west of Deerfield; which in some places entirely destroyed the crops. A gen-

Indian corn rather small. A correspondent at Cincinnati, State of Ohio, has furnished me with the following thermometrical observations made at that place by Jared Mansfield Esq. Surveyor-General. The observations were taken from two to three o'clock P. M. The mean of each month is as follows:

1867, January, $35\frac{1}{2}$; February, 36; March, $42\frac{3}{4}$; April, 59; May, $70\frac{1}{2}$; June, 82; July, $88\frac{1}{2}$. Lowest descent, 11 below zero; highest, 94 above. This last was the ninth of June, when the thermometer stood in this town at 92. Cincinnati is situated on the north bank of the Ohio River, according to Ellcott, lat. $39^{\circ} 5' 54''$.

News, Medical, Agricultural, &c.

ONE of the most universally prevailing epidemics yet known, a species of influenza, has lately visited this country. It seems to have appeared first to the southward, as early as the month of July, and its course has been that of the Atlantic States, to the north-east. The most usual symptoms have been, pain in the head, sometimes confined almost wholly to one side, and affecting particularly the ear or the eye of that side; pain in the breast, back, and limbs; soreness of the throat and stomach; cough, this however in many instances has been very slight; nausea or sickness, accompanied with chills, thirst, increased pulse, and fever. A species of ophthalmia, or inflammation of the eyes, which attacked very suddenly, has been somewhat prevalent at the same time. Notwithstanding the general prevalence of this epidemic, it has not often been attended with very severe or dangerous symptoms; a large proportion of those who have suffered from it not having been confined to their beds or room.

Considerable attention seems to have been excited in some of the southern States, to improving the breed of sheep. Two very beautiful sheep have lately arrived at Arlington, from Smith's Island, perfectly wild. This island is situated at the mouth of Cape Fear River, in North Carolina. A specimen of the wool of these native sheep was exhibited in August last, before the agricultural society of Pennsylvania, convened in the city of Philadelphia. It is said nearly to resemble the famous Spanish

tleman from Conway informed me that hail-stones were found as large as common hen's eggs; these were of an irregular form. Four or five days after the storm large masses of ice were found on the ground whence the hail rolled from hills against fences, &c. Have we a satisfactory explanation of the formation of such large hail-stones in the atmosphere?

wool, excepting that the animals will yield nearly three times as great a quantity; is nearly the length of the English combing wool, and exhibits beyond contradiction the congeniality of the climate with the perfection of that valuable staple of manufacture. This island is improved as a pasture for sheep. They are shorn twice a year. After shearing they are set at liberty. The extent of the island is such, that many are never taken, and live to a great age.

The weight of eight choice ewe lambs, at the sheep shearing at Mount Airy, in North Carolina, was as follows:—

No.	Weight of the fleece.	Length of wool.
1	6 $\frac{3}{4}$ lb	6 inches.
2	7 $\frac{1}{2}$	9
3	5 $\frac{1}{4}$	8
4	8 $\frac{1}{2}$	10
5	7 $\frac{1}{2}$	8
6	7	8
7	8 $\frac{3}{4}$	9
8	8 $\frac{1}{4}$	10

Gross weight of lamb No. 8, after shearing, 93 lb.

There has lately been erected in the city of Philadelphia, a FACTORY, containing two looms, in the largest of which cloth is made seven yards wide. Such is the superiority of its machinery, that one man alone is able to make from thirty-five to forty-two square yards per day. It is said, that in Europe, two men at least are employed in making cloth of this width, who together seldom produce more than eighteen yards per day.

The object of the factory is that of making the patent floor cloths or summer carpets, similar with those of Hare's patent, hitherto always imported; for the perfection of which, it is best there should be no seam; it is therefore necessary to weave of this extraordinary width.

N. B. Our agricultural friends and correspondents, as they come to be more at leisure, are particularly solicited for the favour of their communications.

CONDITIONS OF THE REGISTER.

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THE

Medical and Agricultural Register.

VOL. I.]

OCTOBER, 1807.

[No. 22.]

M E D I C A L.

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DR. ADAMS,

By giving the following a place, you will oblige a friend to medical improvement.

*For the MEDICAL AND AGRICULTURAL REGISTER.*

*New Treatment of the Yellow Fever.*

IT has been said, and I think truly, that no mode of treating the yellow fever has been devised in the United States, which has been so successful as to solve the doubts of physicians in favour of any one plan of cure, or to unite the public confidence in its support. While this is the case, whatever promises to be useful has an unequivocal claim to be fairly tried by the American physicians.

Considering the present state of medicine in this point of view, with regard to the disease in question, it is the object of this paper to excite some attention, to two means, both as preventing and curing the yellow fever and other similar disorders, which come from Europe recommended by the most authentic testimonies in proof of their efficiency. Neither of these methods, so far as I can learn, has had any thing like a full or adequate trial in this country. I allude to the acid fumigations of Guyton Morveau, of France, and the cold affusion and other modes of using water, as applied and explained by the late Dr. Currie, of Liverpool. Of the latter means as a successful method of combating the "American pestilence," I shall say nothing more, as the "Medical Reports" of this highly and justly esteemed author are considerably diffused, except to express my

VOL. I.

X

surprise and regret that they have been so generally neglected, and particularly so by our Reviewers, and Editors of Periodical Publications.

Guyton Morveau began his fumigating practice at Dijon, in 1773, where he succeeded in checking an infectious fever, which was occasioned by the effluvia from the dead bodies just removed from the vaults of the cathedral church. Another opportunity for trying these acid vapours occurred soon after in the same place. The atmosphere in the jail of Dijon became so corrupted, that a malignant jail fever broke out among the prisoners, by which many of them were carried off; but the apartments being fumigated with muriatic acid gas, for one day only, the atmosphere was so much purified, that a young surgeon slept the whole night in one of the most infected rooms, without experiencing the least harm. Similar fumigations were likewise found of great efficacy in a distemper of the horned cattle, which in the year 1774 raged in the south of France.

Since this period, the utility of these fumigating processes has been recognized, their use every where directed, and the inventor of them rewarded by the French Government. In the year 1805, the third edition of Morveau's "Treatise on the means of disinfecting the air, of preventing contagion, and of arresting its progress," appeared in Paris, in one volume octavo.

From a body of most respectable and authentic communications and testimonies exhibited in this work, it appears that the acid fumigations have now been fully tried in almost every country of Europe, and in some parts of the West-Indies, *with success*, in all the states of malignant fever, from the typhoid grade, to the yellow fever of America.

This scourge of our country first appeared in France in the year 1802, at Marseilles on board an American ship; this fever appeared again in the lazaretto of the same place, in October, 1804, with characters of contagion still more alarming. "Many observations made on those who were seized with the yellow fever in the lazaretto of Marseilles, confirm, in the clearest manner the power of the muriatic acid fumigations, according to the Guytonian method. Every vessel coming from Spain or Etruria, on which the yellow fever was in a state of activity, has been completely disinfected. The same method has invariably preserved the guards who have had charge of the sick, with the exception of those who came on board before any precaution was taken."

*Directions how to make use of the Acid Vapours.*

"The processes for correcting bad air, for destroying contagious miasmata, and for guarding the body against their impression, are founded on the same principles; but the choice of agents, the doses and manipulations ought to vary according to circumstances, and the object to be attained. Large fumigations in open vessels are indispensable where places not inhabited, or those evacuated only for a short time, are to be purified; such for example, as the rooms of lazarettoes, infirmaries, hospital wards, prisons, vessels, stables, &c. In a word, in all places where it is proposed to effect a complete purification in a few hours, and where the intensity and duration of the fumigations need not be restrained by any consideration, and where more is to be apprehended by doing too little than too much.

Where the intention is merely to support the salubrity of the air, in the chamber of a sick person, to quicken the vital energy by a light stimulant, to destroy the fetid smell of dejections, to secure the attendants against all deleterious impression, these effects may be produced by opening two or three times every day a permanent apparatus, or a disinfecting flagon, if the apartment is not large."

The materials necessary for the production of the oxygenated acid gas are, common salt, the black oxide of manganese pulverized and passed through a hair sieve, and the sulphuric acid. "The proportion for their respective saturation, and consequently for the greatest production of gas, are—

|                    |   |                    |
|--------------------|---|--------------------|
| Of common salt     | - | 5 parts by weight. |
| Oxide of manganese | 1 |                    |
| Sulphuric acid     | 4 |                    |

To determine the quantities, take, for example, a room of 40 feet by 19; for this apartment would be necessary—

|              |   |            |
|--------------|---|------------|
| Of salt      | - | 10 ounces. |
| Of manganese | 2 |            |
| Of the acid  | 8 |            |

The salt and manganese being mixed without trituration, are to be put into a vessel of glass or hard pottery. The vessel being placed in the middle of the room, the acid should be poured on all at one time, in a smooth uninterrupted stream, and the operator withdraw to avoid any inconvenience from the ascending vapour.

After this the doors and windows are to be kept shut for seven or eight hours, when the external air is to be admitted. The apartment may now be entered without the least inconvenience."

The manner of fumigating extensively, by means of the common muriatic acid, without the manganese is the same, the proportion of the ingredients being the same as above, their quantities are to be determined by the extent of the place to be disinfected.

In the apartments of the sick the fumigations ought to be sufficiently strong to purify the air, without being so powerful as to incommode them or their assistants. A very advantageous method of equally diffusing the salutary gas, without the least inconvenience to the assistants, is that introduced by Dr. Chausier into several great hospitals in France. It consists in carrying the vessel containing the salt simply, or the salt and manganese, and pouring on it a few drops of the sulphuric acid, to be repeated only when the vapours begin to cease. An assistant holds in one hand a kind of shelf on which is placed the cup, and in the other the flagon of acid, and thus at will moderates or augments the effect intended. Similar fumigations are also made with the nitric acid.

These fumigating processes are conducted equally well with or without heat.

Of all these different gases, that of the oxygenated muriatic acid is the most prompt and powerful antiseptic. The old fumigations with aromatic and other substances, as woods, herbs, tar, resins, &c. possessed no power to correct the infection of putrid air, they only seemed to do so by weakening the perception of its smell. All this was worse than doing nothing, because it lessened the sense of danger, while its reality existed in full force.

These acid vapours, on the contrary, result from the improved chemistry of the present day; and it is their prerogative, as now proved by numberless trials, to neutralize and radically destroy atmospheric contagion. This is done by a decomposition of the infectious atmosphere, and by the formation of new compounds.

One of the former editions of Morveau's Treatise has been translated by a Dr. Hall of England, which is now in the Boylston Medical Library at Cambridge.

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#### *For the MEDICAL AND AGRICULTURAL REGISTER.*

WHEN any one in a neighborhood falls sick, he is sure to have many advisers. One recommends this thing; another that thing; and a third, a different thing still; and all with the most confident assurances of their happy effect. And why?

because, forsooth, they have seen these things used in exactly similar cases (as they suppose) with the most complete success. Weak minded people! unwelcome intruders upon the sick! And do you know the case of your sick neighbor, for whom the doctor, perhaps, prescribes bloodletting and calomel, is exactly similar to the one you saw a twelve-month since, who took a dose of herb tea on going to bed, and the next morning got up well? Are you acquainted with all the meanderings of the blood? Do you know the springs and the powers of human life? The nature of diseases, and how the system under various and different circumstances becomes affected by them? If not, how is it that you come to decide so positively on two different cases, although appearing to be the same, yet that they are exactly similar and to be cured by the same remedy? As instances of the mischief which may and often is done by the too precipitate use of the same medicine in similar disorders, I beg you would attend to the following facts.

"A person violently troubled with the colic took a glass of juniper spirits, commonly called Hollands, from which he received some temporary relief, as the indisposition proceeded from flatulency. Another person, who found himself attacked with similar pains, was induced by the example of his friend, to try the same expedient; he took it without hesitation, and died in a few hours. Nor is it surprising that the effects of the cordial were fatal in this case, as the colic was owing to an inflammation in the intestines.—A third person was afflicted with a colic, arising from poisonous mushrooms, which he had inadvertently swallowed; the immediate administration of an emetic, and after it some diluted vegetable acid, restored him to health.—A fourth person had an attack of this malady, from an *encysted hernia*, or inward rupture. An emetic, which relieved the former patient, necessarily proved fatal to the latter; for it burst the bag of enclosed matter, poured the contents into the cavities of the abdomen, and thus speedily terminated his existence."

So much for mistakes in the nature and cause of the complaint. From such instances let all those, who have not made medicine their study, regularly be cautious what they advise to the sick; and especially where there is a regular attendant physician, never to interfere with the mode of treatment by him prescribed; lest, pushing their ignorance between the life of the patient and every chance of his recovery, they do in fact become the instruments of his death!

*Massachusetts, October 13, 1807.*

OBSERVATOR.

## Quackery.

DR. ADAMS.

It must be highly gratifying to every friend of humanity, to find in circulation, so useful a publication as your Register, which is eminently calculated to check the progress of a great and growing evil in our country—the employment of empirics, with their nostrums and quack medicines. When it is considered that such oftentimes is the complicated nature of disorders with which the human system is attacked, that the most learned and skilful are often at a loss for means of relief, what can be expected of the blustering ignoramus, who, having caught from his grandmother\* a few notions of management of the sick, visits the apothecary's shop, fills his saddle-bags with he knows not what, and sets out with full purpose to drive sickness and death from the earth. I was lately in a shop where a creature of this kind was filling his bags. He gave himself the epithet of doctor, and said "he had a woman under his care whom he thought by ——— would never be any better." Being asked what ailed her, he replied "*she has the septic penim.*" He was again asked, "what disorder that was?" To which he answered in gibberish, some of which was idiomatic of the Roman language, but not a word pure. A woman came into the shop and asked for some spice-bitters. The aforesaid doctor, without asking her any questions, told her that "previous to taking the bitters, she must take a stout dose of *jellup* with four or five grains of *kilt a mun*" (meaning, I suppose, calomel.) The woman replied, "the bitters are not for me, Sir," and left the shop; soon after which Quack followed. I made some inquiry about him, after he went out, and was informed that it was doctor B. who called himself an Indian doctor, and pretended to cure all diseases with a decoction of roots and herbs with simple regimen, though he was frequently buying cauterizing, narcotic and other powerful drugs, which (with deference to the learned physician) are, in the hands of those who know not the use of them, like razors for infants to play with, dangerous things. The above is founded in fact, and offered with no other view than to guard the imbecile against such pretenders to knowledge of the human system, and what is necessary to correct its disorders; for surely it must be much the safer way for all who are in any way disordered, to trust to regularly bred physicians, who from time immemorial have ever been highly esteemed by all who were prop-

\* I do not mean to speak contemptuously of grandmothers; they are highly useful when acting in their proper spheres; to which if quack doctors were reduced, they would be found (as a learned author on husbandry has it) "tossing about their dung with an air of majesty."

er judges of their worth; as evidence of which see a piece of Apocryphal Scripture in the 38th chapter Ecclesiasticus, two hundred years anterior to the Christian era.

HENRY WHEELER.

Bridgton, (Maine) August, 1807.

### *Curious Remarks on the various Diseases to which Mankind are subject.*

THE ingenious Dr. ADAIR has made the following curious and interesting remarks on the shortness of human life:—

Of one thousand persons, on an average, he says twenty-three die in birth; two hundred and twenty-seven from teething, convulsions and worms; eighty from small-pox; seven in the measles; eight women in child-bed; one hundred and ninety-one of consumptions, asthma, and other diseases of the breast; one hundred and fifty of fevers; twelve of apoplexy and lethargy; and forty-one of dropsy; omitting other diseases not so well ascertained; so that only seventy-eight of one thousand attain what may be deemed old age. Or if the reader chooses to take it in another point of view; of one thousand persons, two hundred and sixty die within the first year; eighty in the second; forty in the third; twenty-four in the fourth; and within the first eight years of life, four hundred and sixty-six, or almost one half of the number, are cut off by premature death.

## AGRICULTURAL.

### *Remarks on the culture of Burnet Grass.*

IT is well known to gentlemen, who are but a little conversant with agricultural writers, that there are several sorts of grasses, which have been cultivated in Europe of late years to the great profit of the farmer, which have not yet prevailed in this country. We have generally confined our attention to clover and fox-tail, or herd's grass. These are good, but unfortunately for the farmer, they are apt to run out in a year or two, and to be succeeded with a natural grass, of small value. Saintfoin and lucerne grass are much preferred in Europe to these, and when properly cultivated, have yielded prodigious crops, and will continue in the ground for many years. M. Duhamel; a



celebrated writer of France, mentions ten thousand pounds or about four tons and a half of dried hay, from a piece of saint-foin, a little more than three quarters of an acre. M. de Chateaueux, equally illustrious as a husbandman, and for holding the first office in the government of Geneva, tells us in his writings, that he cut a piece of lucerne of about an acre, five times in a year, and had fifteen thousand three hundred pounds of hay. I have been informed by a gentleman who was on the spot, that he saw lucerne cultivated some years since in the garden of Colonel Chandler, jun. of Worcester, which was two feet and upwards high, and grew so as to produce three crops in the same year. Both of these grasses have been sown by several gentlemen the last year, and appear with a very promising aspect. The approaching season will give them an opportunity to acquaint the public with the result of their experiments. I saw some lucerne in my neighborhood the last season, which grew knee high within a short space after it was sown. This grass will come to perfection the first year, if it is sown alone, as was the specimen which I saw.

But there is another species of grass, much celebrated in England for its peculiar excellencies, which appears worthy the attention of those gentlemen, who, to their honour, are now making experiments for the promotion of the agriculture of their country. I mean burnet grass. It has great recommendations in that first performance of the kind, the Complete Farmer, published by a society of gentlemen, members of the society for the encouragement of arts, &c. in London. For the information of those who possess not this inestimable dictionary of husbandry, a volume incomparably better adapted to our soil and climate (because containing the essence of the best experiments of a great variety of soils and climates) than the low productions of Varro, long since the object of public ridicule in England, I shall take the trouble of presenting some extracts relative to this article.

A plant, say these gentlemen, which will not only live through the winter, but will also, if possible, vegetate in that season, cannot fail being highly advantageous, provided it be at the same time a pleasing and nourishing food for cattle. All these properties have been lately found in burnet. It not only preserves its verdure during the hardest frosts of our winters, but also increases in bulk, and grows, if the weather be at all open and mild; and is now known to be an excellent food for cattle. Mr. Rocque, the discoverer, has found by experience that it will grow in the driest land; for he has planted some of it in the gravel walks of his garden, where every thing else is burnt up in the summer, but this never withers; one of the qualities

of burnet being to continue in sap all the year. It is the opinion of many, who have seen the burnet of his raising, that if this plant is generally cultivated, there will never be a scarcity of hay, even in the greatest drought.

The land on which it is sown, should be fine, because it is apt to shed, and it should afterwards be dried perfectly. Burnet does not lose its leaves in drying; and though the hay made of it be sticky, it will, after threshing, be very agreeable to horses, which are so fond of it, that they never waste any. One acre will produce upwards of three loads of hay, and above forty bushels of seed. Horses are fonder of this seed than they are of oats. Burnet bears seed twice a year, and will besides yield a good spring crop. It is not only good for horses, but for all manner of cattle, even for swine.

The burnet sown in May may be mown at the latter end of July. That sown in June will yield a pretty good crop, and must be cut but once; and the same of that which is sown in July. The plants produced by seeds sown in August, should be mowed, to destroy the weeds. These mowings may be given green to horses, or made into hay. The first spring cutting will purge horses; and Mr. Rocque believes, it will also cure the grease: but it is only the first crop that purges. Burnet should be mown but once the first year, in order to leave it rank in winter; and in this case it will be ready to seed or mow very early in the spring.

When the seeds of this plant are to be saved, it must neither be fed nor mowed, in the spring. The seed will be ripe about the middle of June, when it must be reaped like wheat, and threshed. It should be threshed before it is too dry, because it is apt to shed, and it afterwards should be perfectly dried.

A Davis Lamb, Esq. writes, that after feeding a piece of burnet of seven and an half acres in the spring, with ewes, lambs and calves, obtaining in the following July from the same, two hundred bushels of very fine clean seed, as many sacks of chaff, and seven loads of hay, he was desirous of knowing what it would perform as a pasture. "Accordingly in about ten or twelve days after the field was cleared, I turned into it seven cows, two calves, and two horses. They all thrived very remarkably, and the cows gave more, and we thought a richer milk than any other pasture. The weather was now exceedingly droughty, and all our pastures were burnt up, yet the burnet flourished, and grew away, as if it had a shower every week. My stock of cows, horses and calves abovementioned, pastured in it almost continually until about the latter end of September. By the middle of November it had grown so con-

siderably, that I have again turned in six head of cattle, and if the weather is not severe, I am of opinion, it will maintain them until Christmas.

"Burnet," he observes, "will bear pasturing with sheep. It makes good butter. It never blows or hoves cattle. It will flourish upon poor, light, sandy, stony, shaltery, or chalky land. After the first year, it will weed itself, and be kept clean at little or no expense."

A Christopher Baldwin, Esq. said to be a "gentleman well known, and justly respected for his candour and fidelity," made several experiments upon burnet, and found it a most useful and excellent grass: four acres of this grass in a summer of uncommon drought, grew well, and the verdure of it was, as he observes, really very beautiful. He had a very good crop, though there was but one shower from the time of putting it into the ground, to the time of cutting it."

He turned his horses and cows into it after it was cut. The cows ate it greedily. The horses were not so fond of it, until two or three days, when they fed well upon it. The quantity of the cows' milk was very much increased in about four or five days, but the flavour of the cream superior to any he had ever tasted. He found the horses were in general exceedingly fond of the hay, though some, affected perhaps with the novelty of it, did not appear so fond of it.

This gentleman mentions, that he was so well pleased with the success of his first experiments, that he sowed another field of twelve acres with a hundred and sixty pounds of burnet. As an experiment, he mentions that he took four cows from a very good feed of natural grass, which gave very little milk. These cows, says he, had not been in the burnet above six days, before they gave much more than double the quantity of milk; nay, was I to say three times the quantity, I know that I should not exceed the truth. His land was a poor dry upland gravel. "There are millions of acres, says he, in this kingdom, of better land, that do not fetch above two shillings and six-pence an acre rent."

The proper quantity of seed for an acre, is about twelve or thirteen pounds.

Wishing success to all connoisseurs in the noble art of husbandry,

I am the public's very humble servant,

AGRICOLA.

*Boston, 1786.*

*Thoughts on raising and feeding Swine.*

[Communicated to the Blockley and Merriam agricultural society, by E. Heston.]

AS every farmer in the United States pays more or less attention to the propagation and feeding of swine, and as the flesh of that animal is not only the most profitable for home consumption, but forms a very considerable article of exportation, too much attention cannot be paid to endeavour to discover the best and cheapest method of raising and feeding them.

I have been in the habit of raising and feeding many swine for these twenty years past: but for the greater part of that time, I followed the beaten path. The great quantities of pork raised in New-Jersey, and most other parts of the continent, have been principally fattened on Indian corn, which is certainly a most expensive practice; for if the corn had been sold, the amount would have exceeded that of the pork.

In the year 1786, I fed twenty hogs, in the first place on pumpkins raw; secondly on pumpkins boiled; and next with meat, giving them some raw at the same time; and lastly, some corn to harden the fat: the hogs when killed, were exceeding good meat, and weighed 3690 pounds.

I kept eighteen shoats over the winter following, which, with twenty-six spring pigs, I summered chiefly on clover and apples. Early in the fall of 1787, I was obliged to put up my shoats in a pen (for want of a pasture with tight enclosure) where I fed them chiefly on unripe pumpkins, (the ripe ones being given to my fattening hogs) which kept them in good order, and served as victuals and drink for many weeks. I fattened the eighteen swine in the same manner as I had done the year before.

The winter of 1787-8, I kept twenty-six shoats on pumpkins, potatoes, and cabbage; and the fall following, I fattened them in the same manner as the preceding years.

The fall of 1789, my pumpkins having failed, I fattened twenty-two hogs on Indian meal and potatoes. The method I used was, to boil about two bushels of potatoes, which being mashed, I stirred in half a bushel of Indian meal. The water and potatoes being hot, scalded and swelled the meal; and the mass became so thick, that it admitted a quantity of cold water to cool and make it thin enough for drink. This was a sufficient mess, and given to the hogs the latter part of the day; soon after, and while they were full, I gave them some corn; which (as their stomachs were cloyed) they took time to chew: this was a day's allowance, except some raw potatoes in the morning. With this feed, they grew and fattened very well, and I supposed when killed, weighed near 4000 pounds; for as I

fold fourteen of them alive to a butcher, I could not precisely ascertain their weight. In fattening these twenty-two hogs, I expended about sixty bushels of Indian corn, and two hundred bushels of potatoes; a quantity which two acres may produce.

I have found from experience, that it is a considerable advantage to take time in feeding a young hog; as his growth will be in proportion to the fat he acquires, and equally well pay for the feed he consumes.

Farmers in general feed their hogs with whole grain, in its hard and dry state, which is much against their interest; for if they are fed so sparingly as to have a good appetite, they swallow it half chewed, and a great part of it will pass through them undigested; and on the other hand, if they have it continually by them, they destroy too great a quantity before they are fat, especially if put up when poor. Now I am of opinion in either of the above cases, as the food is not received in a proper state for digestion, that a bushel of meal made into swill, is equal to a bushel and a half of dry grain, and double the profit, when mixed with a vegetable, whose bulky substance chiefly consists of a nutritious juice, which, incorporating with the small particles of the grain, qualifies them for nourishment, and enables us to use a quantity sufficient to increase the fat and growth to advantage.

There are various kinds of food for hogs, besides grain and roots, which must be far more profitable, as greater quantities can be raised with equal labour, on the same quantity of ground. Pumpkins, for instance, from cheapness of culture and gathering, must be far more profitable than any kind of roots; and must continue to be so while the price of labour bears that proportion to produce, which it hath ever done in this country.

It is necessary to have a thriving pig, in order to raise a large hog, which verifies the old proverb, "the start is half the race."

The beginning of March, 1788, I weaned a number of pigs about five weeks old, and fed them well on what I thought most suitable, except milk, of which I had not a sufficiency. The beginning of July, I had a fresh litter of pigs, which I permitted to suck, until they weaned themselves: at three months old they were as large as the others at seven; and when eighteen months old, exceeded them nearly one hundred weight. Now it is evident to me, that this difference arose from the former being deprived of milk before they were of an age to thrive on other food.

The advantage from turning hogs upon clover is very great; for although they will not thrive upon that alone, equally with those which have swill and grain, yet it will require so much less of these articles, as to enable us to raise double the number of swine, with the same expense.

## MISCELLANEOUS ARTICLES.

*Gather up the fragments, that nothing be lost,*

WAS a family order, given after a plentiful meal, by one who could instantly command a supply of bread. The power of providence is exercised with the same wise economy, as the power of miracles. Neither of them is prostituted to the gratification of luxury, or the encouragement of negligence and laziness. In the divine works, there is no profuseness, and there ought to be none in ours. Providence is bountiful but not wasteful; its blessings are bestowed freely, but not lavishly. We are to receive them thankfully, and use them frugally; not lose them by carelessness, nor squander them away in extravagance. The man, who gathers up what Heaven gives, and who suffers nothing to be lost, will always have a supply. He who receives not what is offered, or preserves not what is cast into his hands, will always be in want.

My friend Providus is a prosperous husbandman. His crops of grain and hay are plentiful: his cattle are in heart, and his cows afford him butter and cheese in abundance. Some, who live near him, on farms as large, and of nearly the same quality, buy half their bread corn; are destitute of hay every spring, and from the same number of cows, have scarcely milk for their families. They wonder what is the matter. They say to Providus, "there is a peculiar blessing on your husbandry." "No," says he, "there is no greater blessing sent to me, than to you. The only difference is, I am always ready to receive and improve it. The sun shines as warmly, and the rain falls as liberally on your farms, as on mine; but they will do you no good, if you sow no seed in season, or make no fence until the crop be destroyed. I prepare my fields well—sow them early—fence them effectually—gather my grain when it is ripe—house it before the rains have ruined it—thresh it before the rats have eaten half of it—and what I mean to spare, I sell, when I have a good market. I never so consume my old stores as to reap my grain before it is ripe, or run so much in debt for rum or any thing else, as to thresh for my creditors, when I should be preparing for another crop. I cut my grass when it is in its proper state, and proportion my stock to my fodder. I never destroy my grain or mowing grass by feeding them down in the spring. I keep my cattle well—and my oxen are strong—and my cows yield me plenty of milk. My wife, in her department, uses the same economy. She gathers up the fragments, and suffers nothing to be lost. What cannot be

immediately applied to human use, she applies to some other use, which ultimately turns to the benefit of the family. She cuts her pork in the barrel with attention, so that one third of it is not reduced to morsels and scraps, and thrown by for soap grease. Her dairy she attends with care, and her cheese is not half destroyed by maggots. When she makes her bread, she does not let it stand until it is too sour to be eaten, or leave it in the oven, until it is reduced to a coal, and then throw it to the hogs. She knows how to time her visits. She mends her children's clothes, before they are tattered to rags. She makes every thing which she handles go as far as it can. Nothing is lost in her hands. Thus we manage our affairs. We act in concert, often advising, but never opposing each other. If there comes a blessing, we have the benefit of it. Use the same economy and industry within doors and without, and you will have your share of the common blessing, and find that Providence is more impartial than you seem to imagine."

### *Anecdote of a Quack.*

"Prithee, Doctor," said an old acquaintance to a celebrated Quack, who was standing at his door, "how is it that you, whose origin I so well know, should have been able to obtain more patients than almost all the regular-bred Physicians?" "Pray," says the Quack, "how many persons may have passed us whilst you put your question?"—"About twenty."—"And pray, how many of those do you suppose possess a competent share of common sense?"—"Perhaps one out of the twenty."—"Just so," says the Quack, "and that *one* applies to the regular Physician, whilst I and my brethren pick up the other nineteen."

*Result of Meteorological and other Observations, for Sept. 1807; made at Deerfield, Warwick, Portsmouth, Smithfield, (R. I.) Hartford, (Conn.) and Boston.*

| Sept. 1807. | Mean degree<br>at sun-rise. | Mean degs<br>at 9 P M | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births.   | Deaths. |
|-------------|-----------------------------|-----------------------|------------------------------|--------------------------------|-----------------------------|----------------------|------------|-----------|---------|
| Deerfield   | 53½                         | 70                    | 61½                          | 7d.                            | 78°                         | 15, 18               | 44°        | S.        |         |
| Warwick     | 47½                         | 68                    | 57½                          | 13                             | 81                          | 27                   | 37         | N. W.     |         |
| Portsmouth  | 54½                         | 67½                   | 61                           | 6                              | 89                          | 17                   | 44         | Variable. | 5       |
| Smithfield  | 51½                         | 66                    | 59                           | 7, 19                          | 74                          | 10                   | 41         | S. W.     |         |
| Hartford    | 51                          | 70½                   | 60½                          | 5                              | 79                          | 15                   | 40         | Variable. |         |
| Boston      | 53                          | 68                    | 60½                          | 7                              | 80                          | 16                   | 44         | Variable. |         |

## WEATHER.

|                                       |         |                       |              |
|---------------------------------------|---------|-----------------------|--------------|
| 1st day, Fair                         | Moon.   | 16—flying clouds      | Full Moon    |
| 2—clouds & sunshine; rain             | [New    | 17 } fair and         |              |
| 3—cloudy; fair                        |         | 18 } pleasant         |              |
| 4 } showers at night                  |         | 19—cloudy; showers    |              |
| 5 }                                   |         | D }                   |              |
| 6 }                                   |         | 21 } fair             |              |
| 7 } showers at night                  |         | 22 }                  |              |
| 8—showers and sunshine alt.           | 1st Qr. | 23—foggy; fair        |              |
| 9 }                                   |         | 24 }                  | Last Quarter |
| 10 } fair                             |         | 25 }                  |              |
| 11 }                                  |         | 26 }                  |              |
| 12 }                                  |         | D—clouds and sunshine |              |
| D—clouds and sunshine alt.            |         | 28 }                  |              |
| 14 } clouds and sunshine alternately; |         | 29 } fair             |              |
| 15 } some rain                        |         | 30 }                  |              |

*Deerfield, September 30, 1807.*

An unhealthy month. *Diseases*, Influenza and fevers. Two persons, one aged 61, the other 12 years, belonging to one house in this town, died suddenly the 26th instant. They were both taken ill in the night, and died the next day in the afternoon. The disease of which these people died, answers to the description given by Doctors Danielson and Mann, in Register No. 5, of the fatal disorder which prevailed last year at Medfield.

Mr. Epaphras Sheldon, the person mentioned in my communication for July 1806, as having been attacked with an hæmoptysis, died of a consumption the 27th instant. He is the fifth adult of the Sheldon family, who has fallen a victim to this fatal disorder within five years.

On the 25th, a comet was discovered in the S. W. about the size of a star of the second magnitude; it is supposed to have passed its perihelion, and is moving northeasterly.

*Warwick, September 30, 1807.*

The greater part of this month has been pleasant agreeable weather; no frosts except in low places; greater quantity of grass than usual at this time of year; corn good; a great surplus of apples.

*State of health.* Fevers less frequent; none has proved fatal, though some cases have run 30 days before a crisis. The influenza made its appearance the first, and became general about the middle of the month; none are exempt from its violence, though differently affected; some with pneumonia, which ended in cough, night sweats and debility; others with head-ache and cough for three or four days, followed with loss



of appetite, pain in the stomach, and great weakness; but all have symptoms sufficiently alike to mark the disease.

W. COBB, JUNR.

*Smithfield, September 30, 1807.*

There has been no severe storms this month. The weather continued wet and disagreeable till about the middle; since which it has been more pleasant and agreeable. Vegetation progresses to maturity, unchecked by "nipping frosts." Indian corn is tolerably good; and in general nearly fit to harvest. Apples are plenty and fair. The crop of potatoes is as good as usual. State of health continues to become more unfavourable: The influenza continues to prevail, and in many cases is very distressing, and has proved mortal. Cases of fever and canker rash have likewise increased.

A SMITHFIELD SUBSCRIBER.

*Hartford, September 30, 1807.*

A pleasant month—but little rain—fine weather for maturing the corn, of which there is like to be a middling crop. Not so much cider made as last year.

Generally healthy, except the influenza, which in some instances has proved fatal. A few cases of the singular disease which appeared last spring: two deaths of that disease.

A comet visible in the west the last evenings of this month: not having seen it but once, I cannot tell whether it is approaching to or receding from the sun.

NOTE. The experiment, communicated by "Philo" has fallen into disrepute in the county from whence it was first communicated; so much so, that we are doubtful as to the propriety of republishing it.

*Erratum.* In our last, page 321, 12th line from bottom, for *acts* read *arts*.

#### CONDITIONS OF THE REGISTER.

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THE  
*Medical and Agricultural Register.*

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VOL. I.]      NOVEMBER, 1807.      [No. 23.

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M E D I C A L.

*For the MEDICAL AND AGRICULTURAL REGISTER.*

DR. ADAMS,

AS blood-letting is frequently performed by persons unacquainted with anatomy, and the wounding of an artery is an accident liable to happen in that operation, under the hand of even an expert operator; perhaps you cannot better fill the "medical" department of one number of the Register than by introducing the following directions to be pursued in case of such an accident. They are extracted from Dr. REE's Cyclopaedia, American edition; *voce* Aneurism, and are at your disposal, from yours,

ΧΕΙΡΟΥΡΓΟΣ.

"In letting blood at the arm, the artery may be discovered to have been wounded, by the blood being thrown out with unusual force, in an uninterrupted but unequal stream, as it were by jerks; also by its florid red colour, and which is the most certain sign, by the blood flowing out in an even stream, with less force when pressure is applied to the artery above the wound. In these cases the diffusion of the blood forming a spurious aneurism, is generally owing to the fault of the surgeon in attempting to stop the hemorrhage too suddenly, either by pressing his fingers upon the wound, or by applying a bandage. The aneurism is produced either in consequence of the orifice in the external skin being displaced in such a manner that the blood can no longer be discharged through it, and must consequently diffuse itself in the cellular membrane; or by the pressure which is hastily applied, being too weak, so as merely

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to close the orifice in the skin and vein, but not that in the artery, which consequently discharges the blood into the surrounding cellular membrane. The tumour produced in this manner is commonly of a red, bluish, and finally, of a black colour."

The false diffused aneurism, arising from this cause, increases in size as long as the internal hemorrhage continues; and if this be not speedily stopped, it produces violent pain and immobility of the limb; nay, at length inflammation, suppuration and gangrene. The most recent case of this kind with which we are acquainted, is related in the sixth volume of the Medical and Physical Journal, by Dr. Adams, of Madeira; in this case a perfect cure was effected by long continued pressure on the artery at the superior part of the arm."

"On the 4th of February, 1797, a young baronet was bled in the vena mediana basilica; and from his having worn a tight flannel sleeve, it was not immediately observed that the blood came also from an artery. The orifice having been closed in the usual manner, bled again in the evening, but was stopped before Dr. Adams could see the patient. On the following morning a considerable extravasation of blood took place. In a few days, however, the gentleman was not thought in need of further attendance, although the arm did not recover its ordinary size. Six weeks afterwards a small circumscribed tumour had arisen in the arm, below the original cicatrix; and on pressure, a very obscure pulsation might be felt; it was firmly bound by the facia (bandage, fillet or roller) and not at all discoloured or painful. The tumor increased suddenly towards the end of March, with the same circumscribed appearance and an evident surrounding extravasation. Strong pressure was now applied by means of a roller to the upper part of the forearm, exactly upon the trunk of the artery, so as to lessen its pulsation; but the bandage was kept hollow, except over the artery, by several pieces of cane applied along different parts of the limb. Although this degree of pressure was had recourse to with a view of obliterating the large trunk of the artery, an increase of the swelling took place in about ten days, accompanied with a slight pain."

"The mechanical pressure on the vessel itself was then augmented, until but little pulsation could be felt in the radical artery. Painful sensations near the wrist, along the lower arm, and under the aneurism were now complained of as intolerable. The fingers were without sensation, the whole arm was enlarged, the veins became turgid, and the pulse remained feeble. This process being persevered in, Dr. Adams had at length the satisfaction to obliterate the main trunk of the brachial artery, and to effect a complete cure. The mass of co-

agulated blood, however, was discharged by a gangrenous sore at the bend of the arm, about two inches in diameter, which was cicatrized before the end of July, 1797; and in January, 1798, every unpleasant symptom had disappeared. This plan of treatment, by *compression* was adopted by the author without his having known that it had been several times practised with success, in different parts of the continent, for other cases of aneurism."

"When, in letting blood at the arm, the surgeon discovers, by the signs which we have already mentioned, that an artery has been wounded, he must immediately apply a *tourniquet* to the upper part of the arm, in order first to stop the hemorrhage, and obtain time for applying his bandages with the requisite care and accuracy. The hemorrhage from the vein is to be stopped with the common bandage. But, in order permanently to arrest the hemorrhage, and close the wound of the artery, he must apply a compress with great exactness, which must be sufficiently tight entirely to prevent the hemorrhage, and not easily to be removed from its situation; it ought also to close merely the artery itself, without affecting the lateral branches and the veins, lest a swelling and mortification might ensue from want of circulation. A pledgit or firm compress is to be applied, the inner surface of which must be somewhat broader than the opening in the vessel, immediately upon the external wound, otherwise the pledgit might easily miss the orifice of the artery. All now depends upon this compress being sufficient to stop the wound, its being applied with an uniform pressure, and in such a manner as not to prevent the motion of the blood through the the lateral branches and veins. The common bandage used in blood-letting does not answer these purposes so conveniently as by means of Plenk's apparatus, which, however, must be applied with great exactness. (Jos. Jac. Plenk's *Sammulung von, &c. &c.*)

"Should a small tumor arise close to the point of the pledgit, the apparatus should first be screwed somewhat tighter, as the pressure was possibly not sufficiently strong. If, nevertheless, the tumor should grow still larger, we may be certain that the compress does not lie upon the wound of the artery; the tourniquet must therefore be immediately applied, and the dressings removed; after which they must be again applied with as great exactness as possible; but first the extravasated blood must be pressed back into the artery, by gently rubbing and squeezing the tumor. If at any subsequent time it should become necessary to remove the apparatus from the limb, the tourniquet must be employed in the same manner."

"The apparatus being properly applied, the arm should be suspended in a sling, moderately bent, and kept as much as possible at rest, during the whole course of the cure. Should any swelling appear in the fore-arm, we ought to endeavour to disperse it by diligent friction with spirituous and aromatic remedies. Moreover, the surgeon should daily examine whether the bandages remain firm and unmoved in their situations, and as soon as he discovers any tumor, he should proceed as above recommended. The length of the time during which the compress ought to remain in its situation, in order to preclude the possibility of a future hemorrhage, cannot be accurately determined: if, therefore, we wish to examine whether it may be safely removed, we ought first to apply the tourniquet, and then take off the apparatus; this being done, we should gradually loosen the tourniquet, and carefully observe whether any tumor is produced at the place of the wound. Should no such tumor appear, we need not use the bandages any longer; it will, however, be proper for security's sake, (as in some instances the wound of the artery has been known to burst open afresh) to apply gentle pressure, by means of a compress, to the artery immediately after the bandages have been entirely removed, in order to diminish the flow of blood through it, and prevent its bursting. Every other motion of the limb should be avoided for some time after."

Furthermore—"To the cure of the diffused false aneurism, two things are requisite; namely, to close the wound of the artery, in order to stop the hemorrhage; and to disperse the extravasated blood. The first is performed by compression with a pledget, and the second by applying bandages to the whole limb, according to Theden's method, and keeping them constantly wet, either with Theden's culnery, or a solution of sal ammoniac in vinegar and water. But if the extravasation spreads farther, and the hemorrhage continues, the operation must be performed without delay."

The "method which Mr. Theden recommends (in *Neue Bemerkungen u. Erfakungen*," &c. &c. "Berlin, 1792," &c. &c.) is applicable even where there is already a very considerable quantity of extravasated and coagulated blood. When in performing the operation of blood-letting, we have wounded an artery, we are to suffer more than the proper quantity of blood, nay even so much as to induce syncope to be discharged, and in the mean time, prepare whatever is requisite for bandaging the limb. Three or four compresses, into the lowermost of which we may introduce a small piece of money, are then to be applied in such a manner as to fill up the cavities in the angle of the elbow, which, till the rest of the bandages are ready,

is to be pressed by an assistant so tight upon the orifice of the artery, that no blood can be discharged from it. The bandaging must then be performed spirally, a *longuette* ["pretty long" compress] of the thickness of a finger's breadth must be laid upon the trunk of the artery, and inclosed in the bandage. When the hemorrhage has been stopped in this manner, a quantity of Theden's *aqua traumatica* [vulnerary water] is to be poured upon the whole of the bandages, so as to wet them through and through. The bandages should not be applied too tight at first if we intend to soak them with the liquid, as it is well known that moisture causes them to contract and compress the limb with greater force, by which means obstruction, tumor, and pain might be produced. Should we, however, have applied them too tight on account of the hemorrhage, we must not wet them till after they have become somewhat loose. As our success depends upon the bandage lying equally close in every part, each turn of the bandage ought to cover half of the former, so that no part of the limb remain uncovered, or not inclosed within the bandage; neither ought any one turn of the bandage to be drawn tighter than the rest."

"The first bandages may be suffered to remain on the limb for the space of three or four days, unless they should grow loose at an earlier period, as generally happens when there is a large quantity of extravasated blood, and this soon begins to be separated and re-absorbed. In applying the bandages the second time, we proceed in the following manner. The roller is taken off from the fingers, hand and fore-arm, and these parts are bandaged anew before the bandages and compresses are removed from the joint and humerus. The roller is then applied over the elbow, and upwards to the axilla. The end of the fillet is carried round the neck, in order to prevent the bandages from sliding downwards; and as an additional security against this accident, the turns of the roller are sewed to each other from the elbow to the arm-pit; the whole is soaked with Theden's vulnerary, and kept continually wet. These dressings may remain in this condition for three or more days, provided the bandage becomes neither too tight nor too loose, and applies to the limb in an uniform manner. If, says Mr. Theden, all these measures are adopted immediately after the accident, the cure may certainly be effected in the space of eight days, only we must examine attentively whether at the place where the artery has been wounded, a new tumor or effusion takes place. Should this happen, we must still continue to apply the bandages for some time; but if the blood has been effused from the beginning into the cellular substance, as sometimes happens, the bandages must be worn till the

whole has been re-absorbed, and the wound properly cicatrized. The utility of this method of Theden's has been confirmed by several practitioners, especially by the successful cure of a remarkable case, related by Mr. Schmalz. (Selterre Chirurg. &c. &c. "Leipzig, 1784. 8vo. p. 59.")

"But when there is a great deal of extravasated blood in the fore, when the tumor is very large, so as not to admit of compression by bandaging, and there is reason to apprehend that the tumor may burst open, an operation must be performed without delay;" (which as it is to be found in most of our books of surgery, need not be described here. The medical reader who is desirous to obtain much important information on this interesting subject, especially such as relates to other species of aneurism, is referred to the work itself, from which the above extracts are taken.)

*Massachusetts, October 20, 1807.*

For the MEDICAL AND AGRICULTURAL REGISTER.

### *Medical Extracts, No. V.*

The drunkard shall come to poverty....*Solomon.*

*Intemperance.*—WHEN we take a view of mankind in general, we are struck with astonishment to see so many citizens which might be useful to themselves and to society, professional men and men of science, duping themselves by the cup even to sottish depravity. Strange it is that man, in point of dignity, but a little lower than the angelic world, should thus debase himself, when nature and reason continually speak to him in the language of "man, do thyself no harm."

Intemperance destroys more than the sword or pestilence. War has its intervals of peace, and pestilence prevails only in certain years and seasons; but intemperance gains strength daily and prevails in all seasons. Few make their exit directly by intoxication, in comparison with the number of those who die of various diseases introduced by intemperance. Nausea and vomiting, indigestion, languor, tremors of the hands, bloatedness, inflamed eyes, and pains in the limbs are only some of the minor children of intemperance. There are others of greater magnitude such as dropsy, consumption, epileptic fits, palsy and apoplexy. These end in death.

"Ardent spirits, like a bold invader, seize directly upon the vitals of the constitution, and sets the whole on fire. The author of nature has furnished the body with powers to preserve itself from its natural enemies, but when attacked by these civil foes it resembles a company of Indians armed with

bows and arrows, against the deadly machinery of fire arms. To drink ardent spirits every day is as pernicious as to take laudanum every day by way of diet, and the artificial health (if any) produced by them is transient, and followed by disease, misery, and death."

Intemperance not only produces many painful diseases, but introduces many vices, as fighting, lying, idleness, theft, &c. It destroys the peace of families, reputation, and overwhelms in poverty. Every inebriate is a candidate for misery and indigence.

Sons of intemperance, hearken to advice before it is too late; lest by your diseases you shall be thrown into the cold arms of death unlamented. Flee instantly from the enemy which threatens destruction to character, property, constitution, and life itself. Remember that a man cannot flee from his vices with too much precipitation, and that men never leave intemperance by degrees. There is no compounding in this case; a resolution must be formed; and perseverance in that resolution will ensure victory, a glorious victory over the disordered appetite. Then health will return, and by the assistance of industry, indigence shall flee away. G.

October, 1807.

### *Observations on Quackery.*

LET us imagine some adventurer sufficiently intoxicated to undertake one of our humblest and most useful trades, for instance, that of a shoe-maker, without apprenticeship, I leave it to be imagined by the reader, how unmercifully the leather would be pricked and shaped, or what would be the condition of the poor toes, condemned to be lodged in the receptacle, prepared by such hands. Are the qualities, then, of leather more complicated than those of the living body? Does the art of managing the former to most advantage require a long apprenticeship, and not that of managing the latter? Are the tools that lie in the compass of a shoe-maker's bench more easy to be employed properly than the articles of the materia medica? I see, indeed, one essential difference; the incompetent mechanic will soon be marked; no clumsy workmanship of his can pass: whereas, in medicine, bunglers may go on. I know not how long, without disgrace. This chance of escaping detection is, no doubt, an encouragement for them, such as nothing can countervail. But I have no hope of effecting any thing, except with active, but misguided benevolence. Insanity must be differently dealt with, and wrong-headedness is scarce to be re-



claimed by the plain dictates of prudence. Otherwise, a consideration, yet untouched, would be decisive! For the defect of the artisan, who leaves his work imperfect, can be afterwards supplied. But an emending hand may be vainly applied in case of omission during sickness, where it is often just as fatal to LEAVE *undone what is RIGHT, as to DO what is WRONG.* What then shall we think of the defence, which conscious incapacity is so apt to set up by anticipation, which is, that, *if it does no good, it can do no harm!* Oh, yes, but if it does no good it *can* do harm—all possible harm, provided in killing there be harm. It can arrest the rescuing hand, till the silent but progressive finger of fate move from *time is*, to *time is no more.* There are plenty of occasions on which water-gruel, upon this harmless principle, will do a man's business just as effectually as laurel-water. (*a most violent poison.*) And what, I pray, does it signify to the killed, whether they come to their end by the sauce-pan or the still? To the killer, the difference, we know, is all in all. Yet he who simply thrusts his ignorance between the sick, and the means of recovery, will really have done more mischief, inasmuch as he will have more largely accumulated pain upon death. And surely, where law cannot interfere, the call is so much louder for public censure. It is by far too unequal a game to be allowed in society, where one party stakes empty professions of good-will against the other's existence.

*Beddres' Hygeia.*

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## AGRICULTURAL.

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*Remarks on the management of a Dairy, particularly with respect to Milk, and making Butter.*

TOO much attention cannot be given to the choice of proper cows for a dairy, intended for making butter, as the quality of the milk is more to be attended to than the quantity; this can only be effected by keeping each cow's milk separate a few times, and examining carefully its quantity and quality.

Several large tea-cups were taken, exactly of the same size and shape; one was filled at the beginning of the milking, and the others at regular intervals, till the last, which was filled with the dregs of the stroakings. The quantity of milk in each was precisely the same; and from a great number of experiments, frequently repeated, with many different cows, the result was in all cases thus: The quantity of cream obtained from the first

drawn cup was, in every case, much smaller than from that which was last drawn, and those afforded less or more, as they were nearer the beginning or the end. The quantity of cream obtained from the last drawn cup, from some cows, exceeded that from the first, in the proportion of sixteen to one. In other cows, however, the disproportion was not quite so great; but in no case did it fall short of the rate of eight to one. Probably, upon an average of a great many cows, it might be found to be as ten or twelve to one.

The difference in the quality of the cream obtained from those two cups, was much greater than the difference in the quantity. In the first cup, the cream was a thin tough film; in the last, the cream was of a thick buttery consistence, and of a glowing richness of colour.

The difference in the quality of the milk was perhaps still greater than in respect to the quantity or the quality of the cream. The milk in the first cup was a thin bluish liquid: in the last, of a thick consistence and yellow colour.

From this important experiment it appears, that the person, who by bad milking her cows, loses but half a pint of the milk, loses in fact about as much cream as would be afforded by six or eight pints at the beginning, and that part of the cream which alone can give richness and high flavor to her butter.

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### *Method of procuring a new Variety of Potatoes.*

By SIMEON DE WITT.

It has been observed that potatoes long propagated from the roots, will degenerate in quality. It is therefore necessary in order to procure a stock in its natural perfection, to have recourse to the seed which the plant bears on its branches. The method of doing this, as proved by experiment to be successful, is as follows:

I gathered what are commonly called the potatoe apples, when they were fully ripe, and had partly dropped from the stalks, and laid them away in a corner of the garden, covered over with potatoe-vines and other vegetable rubbish, where I left them for several weeks, till they had become so soft as to be easily squeezed or mashed in the hand; then taking a bason of water I pressed out the pulpy matter containing the seeds and mixed it thoroughly with the water. On suffering the bason afterwards to stand quiet for a little time, the seeds settled to the bottom, while the other matter remained suspended, which being then poured off, left the seed almost clean; and repeat-

ing the washing in this manner once or twice, I obtained it perfectly clean and fit to be dried and put up for use. Early in the spring I prepared a bed, and having made drills in it at proper distances from each other, I sowed the seeds in it exactly as I would sow the finest flower-seeds. In due time I had the satisfaction to see them apparently all vegetate. The first appearance of the plant above ground, is with two small leaves almost triangular, each about one-tenth of an inch in diameter. They were soon attacked by the small flea-like bug that devours the leaves of young raddishes, turnips, and other acrid vegetables; in consequence of which, I had but few remaining. These I left in the bed: they grew rapidly and almost to the length of the plants raised from the roots. The ground was hoed up against them from time to time, and in the fall, when I dug them up, I found the roots strung along with potatoes of all sizes, from about an inch and a half, to that of a pea. Thus far only I have gone with the experiment. The next thing to be attended to, is to separate these young potatoes into as many parcels as there are varieties; for you will have them of various kinds, and the following year to plant them in as many distinct places, and to manage them in the ordinary way. This season will bring them to their full size and perfection, and enable you to make trial of their comparative qualities; those of superior excellency will of course be selected for a new stock.

I did not remove any out of the beds where they were sown; but the proper way, I believe, would be to transplant them soon after they are up, so wide apart from each other, as will leave plenty of room for hoeing and for the roots to run a sufficient distance without incommoding each other.

If the practice of raising new stocks of potatoes from the seed were generally adopted, I have no doubt it would be the means of improving the species of that most valuable vegetable, to which the soil of America, as its native country, seems to be peculiarly favorable. It therefore, in my opinion, deserves to be recommended to every person who takes pleasure in becoming the benefactor of his country, by attempts to improve those productions of nature which are necessary for the support, and tend to multiply the delicacies and luxuries of life.

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### *An Account of extraordinary Crops of Corn raised by means of Street Manure.*

THE following account of two crops of corn, deserves to be universally known, as an incitement to the spirit of emulation and industry among farmers.

Mr. John Stevens, of Hoboken, New-Jersey, and Mr. D. Ludlow, of Westchester, betted fifty guineas upon the superiority of their crops of corn. Mr S. ploughed his ground three times before planting, and before the last plowing put on 700 horse cart loads of street manure; he planted in double rows at  $5\frac{1}{2}$  feet asunder, and dibbled each grain. To do this with expedition and accuracy, he bored two rows of holes in a piece of board four feet long, so as to form equilateral triangles, the sides of which were seven inches, thus:



Into these holes he drove pegs, about  $3\frac{1}{2}$  inches long. As the corn was dropped into these holes, made with this machine, a man followed with a basket of rotten dung with which he filled them up. Then came on the carts, out of which the rows were sprinkled with a coat of *street manure*. During the season the crop was suckered three times. The intervals were repeatedly ploughed, and the rows kept perfectly clean of weeds by hoeing and hand weeding. The produce of the crop was as follows: 233  $\frac{3}{4}$  measures full of corn in the ear. A measure full contained one bushel and a half and one pint of shelled corn; 233  $\frac{3}{4}$  give consequently 354 bushels and 6 quarts, or 118 bushels and 2 quarts per acre. Mr. S. is confident, that he would have had considerable more corn, had not his crop suffered very greatly by a thunder storm, which laid the greater part of it down at the time the ears were setting.

Mr. Ludlow planted in continued rows, four feet asunder, and eight inches from stalk to stalk in the rows, and manured with 200 horse cart loads of street dirt. His crop was as follows:

Total, 182 measures of corn in the ear. Shelled corn in full measure, one bushel and a half and four quarts; which in 182 gives 295 bushels and 12 quarts, or 98 bushels and 14 quarts per acre.

These are truly noble crops, and do honour to the industry and agricultural skill of the cultivators.

### On Bee keeping.

MANY and great are the advantages to be gained by the inhabitants of these United States, if bees were propagated, supported, and preserved. Our soil and climate are inferior to none for this purpose. Not Egypt, Greece, Italy, Germany, France, England, or any part whatever of the whole globe, would exceed us in the quantity, quality, or flavour of the honey. Canaan, of old, could not with more propriety be called a land flow-

ing with milk and honey, than America would be, did we but improve all the means to produce these so valuable and so important articles, which we might do very easily; which would assist each other when we annually extended such pastures as would increase both.

Bees-wax for manufactures, candles, and exportation, will be a great motive to exertion, and perhaps emulation in this system; especially was a bounty given upon it by government. Wax candles would then be sold as cheap as tallow, and the quantity of wax, in American exports, would be very great indeed.

A writer observes, that were bees propagated, and supported as extensively as a country would bear, innumerable insects would be destroyed, which feed upon the honey in the bloom of trees, shrubs, and herbs; and that this would tend to expel those hosts of insects, which we observe floating in the air, playing in the rays of the sun, near the time of its setting, many of which we are in danger of receiving into our bodies by respiration, because of their smallness, much to the injury of our health.

If these observations are just, will not the increasing of bees assist in expelling the caterpillar and canker-worm, which have so often destroyed the fruit of the apple-tree; whose young often feed upon that part of the bloom, from which the bees collect the yellow down, which they carry into their hives on their legs?

This point could be easily decided by those persons who have trees near their bee-houses, or in those parts of the country where bees are most frequent. Should the knowledge of any one prove this to be a fact, that such trees are less frequently, or never attacked by these ravagers, the world ought to be favoured with the information.

Insects often feed upon that moisture, which many trees, especially the chestnut, afford in very sultry days, in summer, which the bees collect with great activity: this is sometimes called honey dew, and is the sweet sap of the tree sweating through the leaf, and becomes honey; which, if more generally collected by the bees, would thereby serve to expel those troublesome and noxious insects.

A FARMER.

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### *Swedish method of breeding Turkeys.*

MANY of our housewives, says this ingenious author, have long despaired of success in rearing turkeys, and complained that the profit rarely indemnifies them for their trouble and loss of time; whereas, continues he, little more is necessary to be

done, than to plunge the chick into a vessel of cold water, the very hour, if possible, but at least the very day, it is hatched, and forcing it to swallow one whole pepper-corn; after which let it be returned to its mother. From that time it will become hardy, and fear the cold no more than a hen's chick.

But it must be remembered, that this useful species of fowls are also subject to one particular disorder while they are young, which often carries them off in a few days. When they begin to droop, examine carefully the feathers on their rump, and you will find two or three, whose quill part is filled with blood. Upon drawing these, the chick recovers, and after that requires no other care than what is commonly bestowed on poultry that range the court-yard.

The truth of these assertions is too well known to be denied; and as a convincing proof of the success, it will be sufficient to mention, that three parishes in Sweden have, for many years, used this method, and gained several hundred pounds by rearing and selling turkeys.

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#### *Succedaneum for Hay.*

As it is known that when about the middle of May, the dryness of the spring has stopped the growth of the grasses, the husbandman has reason to apprehend a scarcity of hay, and that it is uncertain how he will be able to feed his cattle during the winter, I invite him to try the following experiment:

About the end of this month, or the beginning of June, but not later, let him plough twice, a piece of ground, in size proportionable to his wants. He must then choose the Indian corn of the smallest size, in order to sow it thick; and sow at the rate of three bushels to three bushels and a half upon an acre, and harrow the ground even. Before he sows the ground, he must let it soak during twenty-four hours in water, to hasten the germination, and to prevent its being eaten by birds. It requires no more trouble till the mowing, which ought to be performed when the blossom begins to come out of the capsule. The plant is then full of juice, and its stalks and leaves are exceedingly succulent. If it were mown later, it would lose this good quality. It ought to be dried as quick as possible, and housed for fodder. The cattle will eat it greedily; it may be given green, and proves a good substitute for hay.

The ground may be ploughed immediately after this mowing, and sown with any winter grain. As the forage stands very little on the ground, it has not time to impoverish it, but enriches it rather, by the immense quantity of tender roots that are buried by the ploughing.

DU PLAINE.

## MISCELLANEOUS ARTICLES.

### *Method of tempering Edge-Tools of too brittle a quality. From a late French publication.*

HAVING bought a neat knife, and paid handsomely for it, I found that whenever I attempted to cut wood, or any hard substance, the edge broke. This accident often repeated, soon made a saw of my blade.—I complained to the cutler, who very seriously told me, that it was a sure sign of the goodness of my knife.—He finished by sharpening it, and receiving his sixpence. This grinding happened so frequently, as to become more tedious than costly, and at last reduced my knife to nearly the size of a large needle.—A new blade was fitted to the handle—the same accident happened to it—it proved again of too brittle a temper. My patience now became tired, and I had almost determined to lay the knife aside, the handle of which I only regretted, when an itinerant scissars grinder gave me an effectual receipt—To plunge the blade up to the handle in boiling fat for two hours, and then, taking it out, to let it cool gradually. I followed his directions; and my knife cuts the hardest wood, ebony, box; even bones its edge now resists.

### *Result of Meteorological and other Observations, for Oct. 1807; made at Deerfield, Hartford, (Conn.) and Boston.*

| Oct. 1807. | Mean degree<br>at sun-rise. | Mean degs.<br>at 2. P. M. | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Births.   | Deaths. |
|------------|-----------------------------|---------------------------|------------------------------|--------------------------------|-----------------------------|----------------------|------------|-----------|---------|
| Deerfield  | 42                          | 58                        | 50.                          | 11, 12 d. 75°                  | 23                          | 29°                  | N. W.      |           | 7       |
| Warwick    |                             |                           |                              |                                |                             |                      |            |           |         |
| Portsmouth |                             |                           |                              |                                |                             |                      |            |           |         |
| Smithfield | 44½                         | 57                        | 50½                          | 14                             | 74                          | 29                   | 27         | N. W.     |         |
| Hartford   | 42½                         | 61½                       | 52                           | 14                             | 78                          | 28                   | 22         | Variable. |         |
| Boston     | 46                          | 62½                       | 53½                          | 14                             | 76                          | 28, 20               | 20         |           |         |

#### *Smithfield, October 31, 1807.*

The weather has been more steady and pleasant this month, than for several past: there has been some windy, and considerable smoky weather; but no severe storms. The severe frosts since the 20th. have completed the suspension of vegetation:

—“Now the fading many colour'd woods  
Shade deepening over shade, the country round  
Imbrown.”—

State of health becomes more favourable.

A SMITHFIELD SUBSCRIBER.

## WEATHER.

|                            |                       |                                        |                      |                  |
|----------------------------|-----------------------|----------------------------------------|----------------------|------------------|
| 1 <sup>st</sup> day, fair. |                       | <i>New Moon.</i>                       | 17—cloudy and smoky. |                  |
| 2 } cloudy,                |                       |                                        | D—showers, thunder.  |                  |
| 3 } a little rain.         |                       |                                        | 19 } fair.           |                  |
| 4 } a little rain.         |                       |                                        | 20 } fair.           |                  |
| 5 } fair, bright day.      |                       |                                        | 21—rain at night.    |                  |
| 6 } fair, bright day.      |                       |                                        | 22—cloudy, fair.     |                  |
| 7 } fair.                  |                       |                                        | 23—frosty morning.   |                  |
| 8 } very clear.            | <i>First Quarter.</i> | 24—Deerfield, snow $\frac{1}{2}$ inch. |                      | <i>Last Q.</i>   |
| 9 } very clear.            |                       | D }                                    |                      |                  |
| 10 } fair.                 |                       | 26 } fair,                             |                      |                  |
| 11 } fair.                 |                       | 27 } smoky,                            |                      |                  |
| 12 } bazy and              |                       | 28 } thick                             |                      |                  |
| 13 } smoky.                |                       | 29 } air.                              |                      | <i>New Moon.</i> |
| 14 } bazy and              |                       | 30 }                                   |                      |                  |
| 15 } smoky.                |                       | 31—a little rain.                      |                      |                  |
| 16—a little rain.          | <i>Full Moon.</i>     |                                        |                      |                  |

*Deerfield, October 31, 1807.*

The close of the month very healthy, the influenza having left us. Crops mostly housed, and with a few exceptions, tolerably good. Indian corn rather light. Cider uncommonly plenty and cheap, and well-stored cellars.

"Foam in transparent floods; some strong to cheer

"The wintry revels of the laboring hired;

"And tasteful some, to cool the summer houses."

In my communication for September last, I mentioned that two persons died in this town of a disease similar to that which prevailed at Medfield last year. Between the first and fourteenth of this month six others have died of the same disease, all except one in the same neighborhood; seven of these are females, and five adults. The disease seems to have originated in a poor family, where the two deaths happened as mentioned in September, and to have spread to another family not far distant, some of whom attended on those first attacked. The disease baffled all medicine, and indeed there was little opportunity to apply remedies, for most of the deceased died within sixteen hours from the first attack. Persons apparently in perfect health who were attending their sick friends were suddenly seized with cold chills, pain in the back, and universal foreness of the body, and within a few hours were consigned to the grave with little or no ceremony; for the alarm excited among the neighbors prevented their attendance at the burials. I have stated that the disease was similar to that which prevailed at Medfield; but this may not be accurate, for as the disease was highly malignant, the bodies were interred as soon as possible, and of course no examination was had by dissection. Some symptoms were observed which are not mentioned in the communication of Doctors Danielson and Mann, viz. great pain in the back and universal foreness of the body, the matter discharged from the stomach very morbid, and the patient



soon becoming delirious. There might have been other differences obvious to a *professional eye*, which I am not qualified to detail. Fumigation with *muratic acid* as directed by *Morveau* was practised extensively in all the houses where the disorder prevailed, since which no new case has occurred, and it is hoped the *virus* disease is extinguished.

Some are ready to believe that this disease was the plague of the eastern continent. It is true that it was as fatal, and terminated life as suddenly, and perhaps some symptoms were similar. But if the plague has generated, as it has been asserted, *only* in damp, hot, stagnated air, infested with putrefaction of animal and vegetable substances, we are not able satisfactorily to account for its appearance in the place where this disease prevailed, for the houses are situated about a mile from the thick settled part of the town, on the top of a hill which rises abruptly from the verge of a clay meadow; and near a river of very limpid water, which has always been esteemed salubrious; and there are no stagnant waters or marshes near from whence the place could be infested with putrid exhalations; and it has heretofore been very healthy. We have hitherto flattered ourselves that the plague had not generated or prevailed in America; but if Dr. *Thornton* is correct, we must relinquish our delusion. For, says he, "Whatever doubts might have been entertained, as to the real nature of the *yellow fever*, on its first appearance in North America, I believe almost all physicians are now agreed that it is the *plague* with such modifications as are easily referable to difference of climate, and different mode of living. But whether it is, as the French wished to say, of the plague of *Marseilles*, a *pire putride* only, or the true *plague*, is immaterial, if it is proved to be fatal and infectious." See *Philosophy of Medicine*, Vol. IV. p. 349, note.

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Hartford, October 31, 1807.

A very pleasant month. Many fine days. Crops of corn rather light. Cider plenty about Hartford. Scarce in some places. Potatoes, turnips, &c. abundant. Very healthy in Hartford and its vicinity. Some instances of the whooping cough.

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M E D I C A L.

*A Physician setting up for business—his hard lot—cannot flatter himself with success, unless he courts the esteem and subscribes to the opinions of every granny and aunt in the neighbourhood.*

[The following, in substance, appeared, some years since, in a paper called the "Hive," and exhibits a correct likeness of what is passing almost every day in some of our country towns and villages.]

AS I have travelled around the country in pursuit of knowledge, I have made a temporary abode in several different towns and societies, into which strangers had recently removed, with a view to a permanent residence. In the multiplied instances which I have seen of this kind, I have not been a little chagrined to observe how the original inhabitants have conducted towards the new-comer. If he be a professional man, who contemplates a settlement, with a design of acquiring an honest subsistence, by a life of usefulness among the society—poor man, he has to endure a multitude of mortifications, and to run the gantlet for about two years, amid a double band of falsehoods, flatters, inuendos, dark insinuations, and all the train of ill-natured sarcasms which minds really ignorant of his character, under the influence of malice, selfishness, and jealousy combined, can possibly arraign to wound his feelings and discourage his enterprize. If he be a lawyer, he is less likely than some others to meet with rebuffs; but if he be a physician, wo be to him for about two years. If he have any feelings, he requires to be doubly fortified with patience, and even to lock up all sensibility for that term, or he will never prosper during the ensuing years.

VOL. I.

Z

Every woman, so soon as she becomes a mother by *lawful wedlock*, feeling that she may, and probably shall, have need of medical assistance in her family, immediately lays claim to *universal jurisdiction* respecting medical men, and medical matters. About seventeen in every twenty of them, [should this be thought stating the thing too largely, say *three out of eight*, which will not be far from the truth,] in their own modest estimation, are *perfectly taught physicians*, and are, without doubt, fully adequate to pronouncing decidedly upon the physician's science and skill, by means of the knowledge which they have had handed down from their mothers, and which their mothers derived from somebody, who had it from "the Indian," or "the negro," or "some old squaw," or some "cancer doctor that went and lived among the Indians," or from "some old man that came along and had a pack on his back." At some time or other, some such person, by some such means, has communicated some such knowledge to somebody or other, which produces the most wonderful effects by way of instruction. In possession of this knowledge, the women know, as soon as *they have had the name of the disorder*, "*what will certainly cure it.*" By means of this, they can certainly determine whether the physician, who has spent his life in the regular acquisition of medical knowledge, knows any thing or not. *They want but one opportunity to inquire of him*, whether "*Specumint, Fether-sew, Tansy-tea, or Mayweed, is not good in this case?*" If he is so unfortunate as to differ from them, and so honest as to speak his own sentiments, and to trust to his own judgment, rather than rely on an old tea-pot full of herb-drink, in compliance with their superior knowledge; in possession of this information, they can, at once, determine that he knows nothing at all. Under these circumstances, his situation is nearly desperate. But if he should be audacious enough to dissent from only one "good old nurse," who knows how to mix an injection, direct how the pipe should be oiled, and how the dose should be administered, if he cannot immediately make his peace with her, he had better make his will without delay, or pack up his clothes and be off. If he but commences the contest, he has to learn by terrible experience, that "from that war there is no discharge." O how I have pitied such young men, when I have known of their being called to visit a sick person, during the two years. Often have I been present (though unseen) when such an one made his debut.

As he passed along a female face or more, might be seen at a window in every house. As soon as he had entered, on goes *squaw bonnet*, and away goes "mother," or "aunt Nabby," or

"aunt Kezia" from this door, "Miss Biddy" from that, "Miss Thankful" from the next, until the whole street is in motion; to see how the sick one does, and to hear what the doctor says. Scarcely had he got seated; before one door opened, in came "aunt Tabby." She hitched up her petticoats, and tilted down into a broken cradle in one corner of the room. Immediately another door was opened, and "aunt Molly" hurried into another corner, dropping a half courtesy as she trotted through the door. And it was but a very few minutes before there was one of those kind, knowing, modest, benevolent, motherly ladies, who has the honor of being aunt to a whole neighborhood, fixed in each corner of the room, and several of those who were growing up to become aunts, (as soon as their medical science should entitle them, to the appellation, and their predecessors should be removed from office,) standing in the various parts of the room; all looking wise, and all watching. I saw one who had thrown a carding apron over her shoulders, as she crossed the street in her haste, not to be behind-hand, soon begin to whisper to her next friend, with a significant, half smothered smile and a consequential wag of the head. This example was soon imitated, in a general way, by every good lady but one; present, who had turned the age of forty; the time when they graduate aunts and doctresses; and that one stood half bent over the sick person, biting her finger nails and listening. From this posture and employment of these good "*help mates*," I concluded that they had adopted the rule of wild turkeys, (and for aught I knew, of *tame geese*;) who, whilst the flock feed, set one to watch. I pitied the poor stranger, for I perceived that he was to be arraigned, as soon as the conclave could collect in another room, and the lady watchful should make her report; and, from what I had often seen before, I knew that he was to be immolated. I accordingly repaired, invisibly, into the room where they convened, and "attended in the judgment hall." But lack-a-day! what did I hear? In five minutes the poor doctor had not enough of a medical reputation left to admit of saying with propriety; that it was ragged. It was all filched away in a scramble, or, as children say, "in a scrabble." I waited to see whether his reputation was all that should be assailed, and I soon perceived that his personal appearance was the foundation of their judging. "Did you not see how he looked," said one; "I am sure he can't know any thing." A second said, "I don't believe he knows what ails the child, *for I never heard of the medicine before that he's ordered.*" "Who knows any thing about him? where did he come from?" asked a third. "I believe

he may as well go back again, for he'll never get any custom here," replied a fourth. "*Did you ever see any body have hair that was BLUE, before,*" said a fifth. Here it became too much for my feelings to endure with patience. And, as I do not like to be disturbed from my tranquillity, or to suffer my passions to dishonor my maternal connexions, I retired, and left the good ladies to *unburden themselves*. This consolation, however, I carried with me, that these ingenuous aunts had pronounced judgment without any real knowledge of his general or his professional character; that he must, however worthy in himself, pass this high court of female judicature, or ordeal, for the usual length of time; and then, with a pliant versatility of conduct, which can accommodate to any change of circumstances which were likely to ensue, at the end of that period of time, they could unblushingly recommend him to others, and employ him in their own families "as the best doctor in the world."

My reflections on this subject closed with the recollection of the following couplet in rhyme verse, which very forcibly expressed the ardent prayer of a young physician, who had suffered considerably in this way, before he had attained the art of pleasing his judges, and ensuring their approbation and support, by talking a great deal of commendatory nonsense. After he had *experimentally* known the blessed effects of this charm, under the feeling remembrance of what he had formerly suffered by reason of his being honest and independent, he passionately broke forth thus—

Of all the mercies which kind Heaven can send,  
O make each midwife, nurse, and aunt, MY FRIEND.

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## AGRICULTURAL.

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### *Pork with little or no Corn.*

DR. ADAMS,

**O**BSERVING in your Medical and Agricultural Register a request to practical farmers to communicate their ideas and experience to the public through your useful publication, I am induced to publish my experience in raising pork. For three years past I have practised in the way I shall communicate, and I do not think it has cost me more than half what it does in the mode I have heretofore made use of; that is, by corn. Take a pig, wean it, then fence off a little patch of peas which

are just in the milk, or pull them up and throw to him; and by several sowings he may be kept during the greater part of the summer and fall in this way. If you fence off, let him remain until the peas are quite eaten up. When winter comes, boil potatoes and give them warm until spring, then wash, whey and grass, and perhaps a little meal made of Indian corn, until peas can be raised in the milk, which may be very early in the summer; then I go on with peas as above, until September, when I feed with peas and oats raised together for that purpose. When they are perfectly dry to thrash, I thrash them and grind them. Boil carrots, potatoes and pumpkins, with which thicken the meal from the peas and oats raised as above. Throw the feed into a cistern provided for that purpose in the air; let it remain until it is in its most raised state. Feed with that until the hogs are ready for the knife. The small hog is the most profitable; and early pigs must be kept until December, fatted and killed. Late pigs are best to keep over winter, kept up and warm in the winter. The mode is better adapted to suit the northern part of America, perhaps, than further south, where corn is easier raised.

A MAINE FARMER.

*Observations on the rearing, fattening, and proper management of calves, as practised by the best breeders in England, extracted from Dr. REE's New Encyclopedia, now reprinting at Philadelphia.*

WHERE it is the custom to rear calves with skim-milk, it should always be boiled, and suffered to stand until it cools to the temperature of that first given by the cow, or in a trifling degree more warm, and in that state be given to the calf. Milk is frequently given to calves when warmed only; but that method will not succeed so well as boiling it. If the milk be given over cold it will cause the calf to purge. When this is the case, put two or three spoonfuls of rennet in the milk and it will stop the looseness. If, on the contrary, the calf is bound, bacon-broth is a very good and safe thing to put into the milk.

Whatever hours are chosen or set apart for feeding a calf, it is best to adhere to the particular times, as regularity is of more consequence than is generally supposed. If the calf goes but an hour or two beyond its usual time of feeding, it will find itself uneasy, and pine for food.

*Calf-pen.* In most instances it is the custom to have the calf-pens annexed to the cow-houses. This is a plan, however, in general, not to be recommended, as every person who has had any experience among cows must know how naturally and how forcibly a new-calved cow expresses her attachment to her calf; with what care and anxiety, if permitted, she licks it all over, and uses every exertion to protect it from injury; how the tender calf clings to its affectionate mother, as if sensible that to her alone it can trust for protection; and yet the poor helpless creature, perhaps, is dragged away and placed within its mother's view, or at least within her hearing, as if on purpose to augment the pain of her sufferings. Its doleful cries keep alive the pangs of the unhappy cow; she struggles to break the chain that binds her fast, and seems restless and uneasy whenever approached. In such a state of agitation it is impossible she can either feed well, or give that quantity or quality of milk she would otherwise furnish.

To lie dry and warm is of the greatest consequence in the rearing of calves. The principal thing to be observed in the construction of calf-pens, is the laying of the floor, which should be made of laths or spars, about two inches broad, laid at the distance of an inch from each other upon joists, so as to make the floor above one or two feet from the ground, as the situation will admit. This not only keeps them quite dry, by allowing all the moisture to pass immediately away, but has the advantage of admitting fresh air below the bedding, and thereby preventing that unwholesome disagreeable smell so often found among calves; for it is to be understood that this place below the floor should frequently be cleaned, as well as the floor itself, whenever it becomes wet or dirty; but it is not right to allow the litter to increase to a great thickness, otherwise the moisture will not so easily pass through. Calf-pens are, however, often made without this sparred floor, and the fresh litter laid on the old, which is a slovenly practice, and not by any means to be recommended.

So essential are warmth and good living to young animals of every denomination, that the care which has been taken of them in their early days will be manifest in every stage of their future growth. Nor is there any stock which will pay better for this cautious management in their youth than the cow kind; for if they are stinted in their feed, or carelessly attended whilst in their growing state, they will never arrive to that size which they would otherwise have done, and consequently the loss will be perpetually felt by the farmer who attempts to raise milch kine of his own breed, without giving them a due attendance in the first year.

## MISCELLANEOUS ARTICLES.

*Cements for mending broken China and Glasses.*

ONE of the finest and at the same time the strongest cements for this purpose, is the juice of garlic, stamped in a stone mortar; this, if applied with care, will leave little or no mark. Another cement for this purpose may be prepared by beating the white of an egg very clear, and mixing it with fine powdered quick-lime. Or, let the thin shavings of sweet cheefe be stirrd with hot water; and when the tenacious slime has been worked with other hot water, let it be mixed on a hot stone, with a proper quantity of unslacked lime, into the consistence of a paste, and it will prove a strong and durable cement for wood, stone, earthen ware and glass; and it has this advantage, that when it is thoroughly dry, it will receive no injury from water.

*Cement for Electrical Purposes.*

Two parts of resin, two of bees-wax, and one of the powder of red ochre. These ingredients are melted and mixed together in any vessel over the fire, and afterwards kept for use. A strong cement for such purposes may be made by melting one pound of resin over a slow fire, and adding to it as much plaister of Paris as is necessary to sufficiently harden it; and then adding a spoonful of linseed oil, stirring it during the mixture.

*Singular Longevity.*

THERE is now living in the town of Foxborough, Mr. John Shepard, aged 103 years and 6 months. He was born March 7, 1704, in the town of Dorchester; where he lived 18 years. He then resided in Stoughton a number of years, afterwards some years in Wrentham, and now resides in Foxborough; and has never moved off of the farm on which he was born. He never had much sickness, and is now able to walk out every fair day. He enjoys a good state of digestion, relishes his food, sleeps tolerably well, converses with ease, and seems pleased with a good story. His intellectual powers are yet



good, and his memory of ancient things tenacious. His hearing is some impaired. He lost his eye-sight on a sudden, 18 years past. He cultivated the earth, enjoyed an athletic constitution, and possessed great strength in his limbs. He once caught a deer with his hands, in a thicket and led it home unhurt. He married when he was 21, and in about four years after he married his third wife. He had ten children of whom only four survive. He was temperate in his mode of living, possessed cheerfulness of mind, and equanimity of temper.

September 8, 1807.

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### *Water Biscuit.*

A GREAT essential necessary is to avoid drowning the flour. Give water, a little and a little at a time. The mass of dough is to be worked up very dry, under the hand; so that when all is done that can be by the hands, towards gathering the materials together into a firm mass, it is still in parts dry, and in cracks with flour here and there untaken up. The rude mass is then committed to a brake (or heavy beater,) with which it is worked a great deal, until it becomes smooth and solid, without any further addition of water. The oven is heated to bake *quick* as may be without burning. These points observed, prevent flintiness.

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### *Simple Method of trying the Quality of Gun-Powder.*

FILL a thimble with the powder you wish to try. Pour it upon a dry white paper: fire the little heap with a burning coal, lightly touching the powder. If it be excellent, every grain will instantly rise in smoke, only leaving on the paper a round spot, pearl colour. If bad, it burns the paper. The mean effects between these two extremes will exactly show the quality. The powder burning the paper but little may be pronounced better than that burning it a great deal; and if it only blacken it, of a superior quality to the first.

By this trial the defects in its composition may also be discovered. If it blacken the paper, it contains too great proportion of coal; does it leave yellow spots, too much sulphur; if there remain on the paper small grains like pins' heads, and they should burn by applying fire, it is nitre, and the powder has not been well pulverized. If these do not burn, the powder is not properly refined.

*Result of Meteorological and other Observations, for November, 1807; made at Deerfield, Hartford, and Boston.*

| Nov. 1807. | Mean degree<br>at sun-rise. | Mean degs.<br>at 2 P. M. | Mean degree<br>of the month. | Greatest heat<br>in the month. | Least heat in<br>the month. | Prevailing<br>winds. | Marriages. | Deaths. |
|------------|-----------------------------|--------------------------|------------------------------|--------------------------------|-----------------------------|----------------------|------------|---------|
| Deerfield  | 30½                         | 40½                      | 35½                          | 2 day 56°                      | 15 day 15°                  | W.                   |            | 4       |
| Hartford   | 30                          | 44½                      | 37½                          | 27 64                          | 15 11                       | N. W.                |            |         |
| Boston     | 35                          | 43½                      | 39½                          | 27 60                          | 15, 17, 18 25               | N. W.                |            |         |

## WEATHER.

|                           |                  |              |
|---------------------------|------------------|--------------|
| D 1st day, snow, fair     | 16 } fair        |              |
| 2—fair, smoky             | 17 } fair        |              |
| 3—cloudy, fair, thick air | 18 } snow        |              |
| 4—cloudy, thick air       | 19 } snow        |              |
| 5—cloudy, fair, thick air | 20—fair          |              |
| 6—rain, some snow         | 21—hail and rain |              |
| 7—fair, cloudy            | D                | last quarter |
| D—fair                    | 23 } fair        |              |
| 9—fair, flying clouds     | 24 } fair        |              |
| 10—cloudy                 | 25 } cloudy      |              |
| 11—fair                   | 26—cloudy        |              |
| 12—fair, thick air        | 27—rain          |              |
| 13—cloudy, fair           | 28 } fair        |              |
| 14—fair                   | D                | New Moon     |
| D—fair                    | 30 } fair        |              |

Full Moon

*Deerfield, November 30, 1807.*

The month has been as healthy as usual. Some part of it cold, but little snow has fallen. Some very smoky days—the 4th the atmosphere was so filled as to occasion a considerable darkness. This was the day preceding the remarkable dark day observed at Huntingdon (Pennsylvania) as has been mentioned in the news-papers.

The evening of the 27th was remarkable for a warm wind from the S. W. This began about 8 of the clock, was attended with rain and fog; the thermometer at 10 o'clock in the evening rose to 61° at sun-rise it was at 37° and at 2 o'clock, P. M. 39°; the wind during the day was N and continued from this point till it shifted suddenly to S. or S. W. in the evening, when the warm air soon arrived. On passing out of a room, comfortably warm, into the open air, it produced a sensation similar to that which we experience on entering an apartment heated by an iron stove. Some people supposed their houses were on fire when they first felt the heat. The wind continued to blow fresh for some time and retained its heat till late in the night: in the morning the ground was entirely free from frost, which previous to this wind had penetrated to a considerable depth.

Hartford, November 30, 1807.

The 27th, P. M. the wind suddenly shifted from north to south-east, and blew a heavy gale; the air being singularly warm and unpleasant.—Healthy generally: a few instances of scarlatina.—The mean degree of heat, in the autumnal months, has been  $50\frac{1}{4}^{\circ}$ . This fall rather colder than last.

### TO THE PUBLIC.

THIS number completes the first volume of the Register. The second volume will commence with the next number.

The Editor preserves a grateful remembrance of all those who have aided him in his present undertaking, by their influence, their patronage, and more especially by their communications. He still looks with great confidence to the experienced and the informed for their future aid and support.

An index appears best at the end of a book; consequently, he has given it in the present number. A title page will be printed and sent out with the first number of the succeeding volume.

The Register, in future, will be printed by Messrs. ETHERIDGE & BLISS, and delivered at their bookstore, No. 12, Cornhill, where Agents, Subscribers, &c. in future, will please to call for their numbers. Those who are in arrears for the Register, will be good enough to make their remittances as usual to Messrs. MANNING & LORING, No. 2, Cornhill.

*Errata.* In our last, page 368, line 6, for *virus* read *virus*, and delete the word *disease*—line 16, for *day* read *dry*—line 29, for *piore* read *fieur*.

**FINIS.**

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CONSERVATION

REVIEW: May...1989

